DOCUMENT RESUME

ED 166 395 CE 019 264

AUTHOR	Dunbar, Zola, Ed.
TITLE	College and University Staff Development Workshop Proceedings (Willamette University, December 2-3, 1976; Otter Crest, April 20-21, 1977). [Statewide Infusion of Career Education into the Preparation of Teachers, Counselors and Administrators].
INSTITUTION	Interinstitutional Consortium for Career Education, Salem, Oreg.; Marion Intermediate Education District, Salem, Oreg. Career Education Personnel Development Project.
SPONS AGENCY	Office of Career Education (DHEW/OE), Washington, D.C.; Oregon State Dept. of Education, Salem.
PUB DATE	Jul 77
GRANT	300-76-0275
NOTE	94p.; Not available in hard copy due to light print in the original document. For related documents see ED 145 975, ED 151 514, ED 157 988, ED 114 586, ED 120 411, CE 019 260-261, CE 019 267, and CE 019 416-417
EDRS PRICE	MF-$0.83 Plus Postage. HC Not Available from EDRS.
DESCRIPTORS	Administrator Education; *Career Education; College Faculty; Consortia; Counselor Training; *Faculty Development; *Fused Curriculum; Higher Education; Participant Satisfaction; Program Development; Program Planning; *Teacher Education; *Teacher Workshops
IDENTIFIERS	Education Amendments 1974; *Interinstitutional Consortium Career Education OR; Oregon

ABSTRACT

This report summarizes the two statewide staff development workshops that were conducted for faculties of Oregon colleges and universities participating in a consortium project designed to infuse career education into the preparation of teachers, counselors, and administrators. (Three previous workshops are reported in CE 019 416.) Included in this document are objectives of the workshops, copies of the programs, and summaries of the participants' evaluation. The first workshop centered around work sessions dealing with four professional education areas: (1) social, cultural, and psychological foundations of education; (2) instructional methods and materials in reading and language arts; (3) instructional methods and materials in social studies; and (4) instructional methods and materials in science and health. The second workshop focused on both state and national trends in career education. Input from the national scene was provided by five major speakers: (1) "Demonstration Model for Training and Retraining Persons to Conduct Career Education Programs," by Leni Ayres; (2) "Conceptual Foundations of Career Education," by Edwin Herr; (3) "Career Education and the Academic Disciplines," by Jerry Berberet; (4) "Career Education and the General School Administrator," by Grant Venn; and (5) "Evaluating the Efficacy of Career Education," by Lois-ellin Datta. Transcripts of the last four speeches are included in this report. (Author/BM)

ED166395

College and University Staff Development Workshop Proceedings

A Project of the
Interinstitutional Consortium for Career Education
Marion Intermediate Education District
3180 Center Street N.E.
Salem, Oregon 97301

Zola Dunbar -- Editor

July, 1977

CE 019 264

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

The project presented herein was conducted
pursuant to Grant Award
USOE 300760275

DISCRIMINATION PROHIBITED

Title VI of the Civil Rights Act of 1974 states: "No Person in the United States shall, on the grounds of race, color or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Title IX of the Education Amendments of 1972, Public Law 92-318, states "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance." Therefore, career education projects supported under Sections 402 and 406 of the Education Amendments of 1974, like every program or activity receiving financial assistance from the U.S. Department of Health, Education and Welfare, must be operated in compliance with these laws.

The activity which is subject of this report was supported in part by the U.S. Office of Education, Department of Health, Education and Welfare, and the Oregon Department of Education. However, the opinions expressed herein do not necessarily reflect the position or policy of either agency. No official U.S. Office of Education or Oregon Department of Education endorsement should be inferred.

PREFACE

The College and University Career Education Staff Development Workshops documented in this publication were conducted as a part of the project "Statewide Infusion of Career Education into the Preparation of Teachers, Counselors and Administrators." The purpose of the project is to facilitate the on-going efforts of Oregon's colleges and universities in preparing educational personnel for the development and conduct of career education activities. Sponsors of the Project are the State Department of Education, the seven Oregon colleges and universities that make up the State System of Higher Education, the eight Independent colleges and universities of Oregon and the Marion Intermediate Education District.

The Interinstitutional Consortium for Career Education (ICCE) operates as the governing body for the Project. ICCE representatives are from Oregon's public and independent institutions of higher education that prepare teachers, counselors and administrators. The ICCE functions with three major work areas of the Project, those being Staff Development, Program Development, and Teacher Certification and Program Accreditation.

Further information about the Project will be provided upon request from the Project Director.

Darrell L. Ward, Director
Interinstitutional Consortium
for Career Education
Marion IED
3180 Center Street N.E.
Salem, Oregon 97301

TABLE OF CONTENTS

Introduction 1

Staff Development Workshops Overview 2

  Evaluation (December, 1976) 4

  Evaluation (April, 1977) 10

Workshop Program (December, 1976) 13

Workshop Presenters (December, 1976) 14

Workshop Program (April, 1977) 15

Workshop Presenters (April, 1977) 16

Major Presentations 17

  Dr. Edwin Herr-"The Conceptual Foundations of Career Education" 18

  Dean William Berberet-"Career Education and the Academic Disciplines" 33

  Dr. Grant Venn-"Career Education and the General School Administrator" 47

  Dr. Lois-ellin Datta-"Some Observations on the Status of Evaluations and of Evaluating Career Education" 54

INTRODUCTION

A vital aspect of the Project, "Statewide Infusion of Career Education into the Preparation of Teachers, Counselors and Administrators" is university and college staff development. During the 1975-76 year in addition to a series of three statewide workshops there were numerous activities for staff development at each of the Consortium member institutions. The institution activities continued through 1976-77 school year and two statewide workshops were conducted to provide continuing staff development for college and university personnel.

Participants, in both the statewide workshops and the on-campus activities, were selected by each institution based on their desire to infuse career education into preparation programs for educational personnel, their capacity to work with other faculty in the infusion process and their knowledge of career education. Faculty members from academic disciplines as well as education were involved in staff development. Institutional activities are varied and unique to each campus because of the size of the institution and the needs of the faculty. Institutional activities included on-campus workshops for educational and academic personnel and Local Education Agency representatives, visitations to LEA's to study exemplary programs, training sessions with Career Information System, and use of career education materials. Continuation of institutional staff development activities is highlighted through long-range plans developed by each college and university. These long-range plans have been updated to reflect the most current direction being taken to infuse career education into programs to prepare teachers, counselors and administrators.

The first statewide staff development workshop was attended by approximately 100 representatives from Oregon colleges and universities, the Department of Education, Oregon LEA's, and the business community. The second workshop involved 87 representatives from Oregon colleges and universities, the Department of Education, and state regional career education offices. The two workshops are the subject to this report.

STAFF DEVELOPMENT WORKSHOPS OVERVIEW

The statewide workshops conducted during 1976-77 school year gave institutional representatives an opportunity to interact with both educational and academic faculties from Oregon colleges and universities, individuals from LEA programs related to a particular discipline, State Department of Education specialists, business men, and national leaders in career education. Insight was gained as to how career education relates to professional education courses, the variety of activities in career education on the Oregon campuses, and trends in career education throughout the nation.

Workshop objectives were as follows:

December 2-3, 1976

Workshop participants will be:

a. Better able to infuse career education materials and concepts into professional education courses,

b. Better able to contribute to institutional planning for career education personnel development,

c. More aware of sex role stereotyping problems in career education, and

d. Better able to develop professional education courses that present equitably both male and female roles in careers and career education.

April 20-21, 1977

Workshop participants will be:

a. More aware of the conceptual foundations of career education,

b. More aware of career education implementation in higher education programs nationwide,

c. More aware of career education implementation in higher education programs in Oregon, and

d. Better able to infuse career education concepts into professional education courses and academic disciplines.

The workshop held in December, on the Willamette University campus, "Infusing Professional Education Courses with Career Education," was centered around work sessions dealing with four professional education areas: Social, Cultural and Psychological Foundations of Education; Instructional Methods and Materials in Reading and Language Arts; Instructional Methods and Materials in Social Studies; and Instructional Methods and Materials in Science and Health. The participants chose the group they would work in depending upon their faculty assignments and interests.

The participants included faculty members from academic disciplines as well as schools of education.

The three-member teams which provided leadership for each of the four groups were selected to include one from the education faculty, one from the academic discipline and one from the public schools working in the specific subject area. In this way the presenters provide a broad base of materials and strategies from which the participants could select to better meet their needs. Additional input was provided by business men involved as presenters for the group concerned with Social, Cultural and Psychological Foundations of Education.

The problem of sex-role stereotyping in occupations was presented during the general session by Ms. Lena LaRae Glennon, Highline School District, Seattle, Washington. Her presentation focused on a local school district's efforts to alleviate sex-role stereotyping as a part of the career education program. The participants had an opportunity to interact on the topic with the speaker and with each other in small groups.

The second workshop "Career Education: Concept to Implementation in Higher Education," was conducted in April at Otter Crest. The participants again were selected by each institution and represented a wide cross section--some who had attended all previous workshops, and some who were attending for the first time; some from the academic disciplines and some from education. This was an informational type of meeting concerning nationwide trends in career education and statewide activities in higher education.

The input from the national scene was provided by five major speakers. Leni Ayres, Assistant Project Director, Stephen F. Austin University, described the process involved in the Demonstration Model for Training and Retraining Persons to Conduct Career Education Programs project and distributed materials detailing the model. Additional information concerning the SFA University project can be obtained by contacting Dr. Bennet Mullen, Project Director, Stephen F. Austin University, Box 3018, SFA Station, Nacagdoches, Texas 79561.

Other major speakers included Dr. Edwin Herr, Professor, Department of Counselor Education, Pennsylvania State University who set the tone of the workshop with the topic "Conceptual Foundations of Career Education." Dr. Jerry Berberet, Dean of Liberal Arts, Willamette University brought the purpose of the infusion effort into focus by speaking on "Career Education and the Academic Disciplines." The need for administrative support was highlighted by Dr. Grant Venn's topic "Career Education and the General School Administrator." Dr. Venn is Calloway Professor of Education at Georgia State University. Dr. Lois-ellin Datta, Deputy Assistant Director, National Institute of Education, Education and Work Group emphasized a vital need for evaluation in the area of career education. A summary of past evaluation was included in her topic, "Evaluating the Efficacy of Career Education." Recommendation and suggestions for future evaluative activities were discussed.

Transcripts of Herr's, Berberet's, Venn's and Datta's speeches are included in this report.

Career education implementation in higher education programs in Oregon was reported by those actively involved in the process. From the many career education activities in the colleges and universities, the six chosen for the workshop are involved with key concepts of the Project namely course infusion, community resources, academic disciplines competenices in career education, career information, and career education and the world of work. The presenters indicated these were all on-going activities and would be adapted and built on in the future plans of their institutions and the ICCE.

Six mini-sessions provided an opportunity for consortium representatives to focus on activities unique to individual campuses. Participants interacted freely in the group they chose to attend. The mini-sessions and presenters are listed to indicate the statewide involvement in staff development and the support given to the major thrust of the project.

CAREER INFORMATION SYSTEM
    Ed Anderson, Oregon State University
    John Clyde, University of Oregon
    Larry Kenneke, Oregon State University

MONITORING TEACHER EDUCATION STUDENTS COMPETENCIES IN CAREER EDUCATION
    Wesley Caspers, Linfield College

ACADEMIC DISCIPLINE AWARDS IN CAREER EDUCATION
    Jim Lyles, Willamette University
    Alan Robertson, Lewis and Clark College

INFUSION OF CAREER EDUCATION CONCEPTS INTO TEACHER EDUCATION PROGRAMS
    Jim Ellingson, Oregon College of Education
    Dale Harp, Oregon College of Education

WHAT SHOULD CAREER EDUCATORS KNOW ABOUT WORK? AN ANALYSIS OF WORK-RELATED ISSUES AND POLICIES.
    Bill Harris, University of Oregon
    Dale Sturdavant, University of Oregon

COMMUNITY RESOURCES UTILIZATION
    Andy Jacobs, Institute for Public Affairs Research

Evaluation

Participants at both workshops had an opportunity to evaluate them on forms developed by the third-party evaluator who also analyzed and summarized the results of those who responded. The evaluations follow:

PARTICIPANTS' EVALUATION
"Infusing Professional Education Courses with Career Education"
Willamette University
December 2-3, 1976

There were 100 participants in the December 2-3, 1976, Statewide Staff Development Workshop held at Willamette University as part of the planned activities of the Interinstitutional Consortium for Career Education (ICCE) Project. Forty-eight participants (48%) completed and returned Evaluation Forms which had been included in their workshop packets.

Seven of the eleven workshop hours were allocated to work sessions, with participants being divided into four groups depending upon their positions and interests:

Group I -- Social, Cultural and Psychological Foundations of Education
Group II -- Instructional Methods and Materials in Reading and Language Arts
Group III -- Instructional Methods and Materials in Social Studies
Group IV -- Instructional Methods and Materials in Science and Health

Overall, majority responses indicate that each of the four workshop objectives (infusion, institutional planning, awareness of sex-role stereotyping and reflecting that awareness in course development) were moderately relevant to their needs. Fewer participants felt sex-role stereotyping was directly relevant to their needs than was the case with infusion and institutional planning. Majority responses indicate that participants perceived that each of the four objectives was attained. However, for each of the four objectives about one-fifth of the respondents felt the objective was not attained. Few (5 of 48 respondents) felt that the "infusion" objective was adequately attained. Considerably more respondents (13 or 15 respectively) felt that the "institutional planning" and "awareness of sex-role stereotyping" objectives were adequately attained. Analysis of the majority responses by work session groups reveals no essential differences from the overall results described above, with the exception that Group II -- Instructional Methods and Materials in Reading and Language Arts received relatively more "adequately attained" and relatively fewer "not attained" responses on the "infusion" objective than the other groups.

The Participants' Evaluation Form sought participants' ratings on 10 items relative to Workshop Content and Procedures. The overall mean rating on the 10 items was 5.65 on a 9.00 scale. The ratings given each of the items was as follows:

5.27	1. New ways of viewing things
5.48	2. Spoke to important changes
6.69	3. Clear, understandable
5.53	4. Ideas, skills, methods can be used "back home"
5.19	5. Real "how to" help for my responsibilities
5.78	6. Retained my interest

4.29	7.	Adequate time to practice skills
5.48	8.	Team leaders helpful
5.96	9.	Other participants helpful
6.79	10.	Personal, close; warm workshop climate

Majority ratings were 7.00 or 8.00 on the scale on each item with the exception of "adequate time to practice skills" where the majority rating was 5.00.

The third part of the Participants' Evaluation Form dealth with Follow Through. Substantive responses of participants to each of the four items in that part of the form are as follows:

1. What will you do when you return to your campus?
   A. About infusing career education materials and concepts into professional courses?

      1. Will increase time spent on concepts
      2. More emphasis on Career Information System (CIS)
      3. Infuse in one course that all students are required to take
      4. Continue infusing into professional education courses
      5. Use materials and ideas in class; discuss with department chairman ways for distribution to faculty
      6. Add units in career education to courses already scheduled
      7. Will infuse, as it is possible
      8. Continue to add materials in the methods courses
      9. Continue to develop a learning packet which will meet the needs of my course
      10. Continue discussing career content with students in my methods course
      11. Recap this conference for introductory classes
      12. This area already being covered on our campus
      13. Include these in my courses
      14. Continue on our development schedule
      15. Implement in my methods course
      16. Continue infusion effects into a number of courses
      17. Develop a new course syllabi
      18. Continue to include in courses; add new concepts
      19. Plan more on-campus workshops
      20. Rewrite syllabi
      21. Use provided materials and apply ideas
      22. Use activities to infuse career education into langauge arts
      23. Meet with instructors to examine syllabi
      24. Continue to work on infusing career education
      25. Work on syllabi
      26. Continue to work on problem
      27. Incorporate a greater number of career education activities into methods, theory and practicum courses
      28. Build a unit into course on minorities education, with women as minorities
      29. Give more organized time to career education
      30. Familiarize students with CIS
      31. Revise syllabi for my courses to include presentation, analysis and critique of career education materials and strategies

32. Give ICCE developed materials to my colleagues and ask them to use the suggested competencies to write their syllabi for next semester
33. Distribute my workshop notes to my colleagues
34. Some infusing
35. Use new approach to present concpets already a part of my course
36. I infuse already

The above verbatim responses exemplify the commitment levels of the participants. It can be noted that the thirty-six outcomes, 25 represent new or increased effects on infusion and 11 represent continued efforts -- suggesting that the workshops' purposes of stimulating new practices and maintaining present efforts are both being served.

B. About decreasing sex-role stereotyping in career education personnel preparation?

1. Make specific provisions rather than assuming awareness
2. Re-examine course content
3. I have begun preparing a unit on this in my education courses
4. Will try to eliminate it when I refer to career education
5. I have begun discussing this with students in my methods course
6. Use information in class on "education and Minorities"
7. We have been researching this for four years
8. We're ahead of the workshop on this
9. Develop materials to make my students more aware
10. Infuse activities to increase awareness
11. Develop series of presentations to students
12. Use some of our own project funds in this area this year
13. Discuss in class
14. Incorporate examples and objectives discussed
15. Make college students aware
16. Work on syllabi
17. Build a unit into a course in minority education
18. Increase use of tools for determining sex-role stereotyping through texts and curricula
19. Continue to work in the area
20. Discuss with students in Foundations of Education
21. Stress its "elimination" in curriculum revision anticipated this year
22. Research on-going on our campus in this area

It seems significant that the "will do" statements listed in B above relative to decreasing sex-role stereotyping are fewer in number and far less specific than the "will do" statements relative to infusion listed in A above. This may be due to at least two factors -- the differing natrue of the two workshop objectives ("doing" infusing vs. becoming aware" of sex-role stereotyping) and the relative amount of time spent in this and prior workshops on the two objectives.

C. About conducting institutional planning for career education personnel development?

1. Give more direct focus to activities
2. Introduce new staff to career education and urge them to plug it in
3. Continue long range program
4. Meet with other workshop participants
5. Will try to use my influence to do more on this
6. Work a group to develop specific objectives which will not overlap
7. Continue planning activities, involving Educational Advisory Group
8. Continue association with campus planning committee
9. Continue planning at faculty level
10. Continue on our developmental schedule
11. Be a bit more involved
12. This is an on-going responsibility for me
13. Work with campus staff
14. Work with chairman
15. Work to implement career education campus wide
16. Start workshop plans
17. Implement plan already existing
18. Encourage dean and others to plan faculty programs
19. Participate more knowledgeably in the on-going activities in this area
20. Increase my participation through the Consortium
21. Continue to participate, but more knowledgeably
22. Meet with other education faculty to plan spring semester activities; consult with education faculty to achieve this year's goals
23. Make myself available if requested to help
24. Think, discuss, plan, write a grant
25. Continue planning already being done

The outcomes relative to institutional planning reflect commitment on the part of some participants to begin planning activities and on the part of others to continue to assist with on-going activities, as some say, more knowledgeably. A variety of approaches and strategies can be noted in the statements listed above, depending probably on the organization and influence structures on the various campuses and the types of approaches the participants have used with success in the past.

2. What assistance will you need in order to help you accomplish the above?

   a. From specialists Zola Dunbar (Portland State University), Marv Harmon (Oregon Department of Education, and Dan Grimes (Oregon Department of Education)
   b. Reassignments in our staff and some time
   c. People, grant money
   d. More balanced information about job liabilities as well as assets
   e. More "how to" programs, e.g., the program from Seattle
   f. Materials to give students on career education concepts

g. Continued support
h. Cooperative colleagues
i. Financial, professional and emotional support
j. Assistance of media center at my institution
k. Continued direct contact with ICCE Project Director's Office
l. Funds for institutional planning
m. Help from other faculty members
n. More time to get material to put in operation in teaching
o. Knowledge of others' infusion efforts and concerns
p. Materials, time to discuss with other in department
q. Time
r. Continuing interaction with others involved in this effort
s. Money for teacher training, especially for slide presentation like LaRae Glennon's
t. Consultants to help infuse appropriate content into education courses
u. Resource literature and data

The number and kinds of statements above suggest that few workshops participants responding had identified the specific kind of help, particularly technical assistance, they need. Perhaps more treatment of the subject of what assistance is available and how and where it can be obtained would be timely in future statewide and institutional staff development programs.

D. The fourth part of the Participants' Evaluation Form was general comments. review of comments made by the participants discloses various sentiments as follows:

1. Thought-provoking, challenging encounter in Group; questions were posed that need to be dealt with before career education will have much chance for "infusion" on university and college campuses.
2. Continue these activities and bring in academic discipline faculty.
3. Individual training needs assessments should be made to help preclude some participants' having to go through things repeatedly.
4. Include more practical suggestions for classroom teachers.
5. Enforce speakers' time limits.
6. Include more women leadership positions in workshops and the Consortium.
7. Team leaders need an outline or plan for running the discussion sessions.
8. More materials for the variety of teacher education courses.
9. Provide written summary material from small groups.
10. Going over same old ground -- import someone to share what's happening elsewhere and stimulate our thoughts.
11. The "field trip" to the Agriculture Department was well handled.
12. The atmosphere for exploration of answers made this the best workshop I've attended.
13. The presenter of sex-role stereotyping stereotyped her audience.
14. I believe career education is seeking a solution for a problem that does not exist in the manner described.
15. Allow more time for participants' interaction. Include business and industry and pre-college students.
16. More "hands-on" work sessions; involve the troops more.

17. Need a foundation laid for the workshop -- at the beginning or even before they start; product of work sessions should be specified in advance.
18. Work session leaders more knowledgeable anout career education in Oregon.
19. Opportunity to work with more than one group.
20. Appreciate the practical materials developed by the task forces.
21. I see a special interest group (career educators) in search of a discipline and a technology.

The comments listed above fall generally into three categories -- those expressing appreciation, those expressing philosophical views and those suggesting changes deemed helpful in improving a subsequent staff development activity. A pervading thread in the comments is a plea for more specificity and task orientation in actual course review and possible revision. A small, but vocal minority opinion exists among those participants who made general comments on the evaluation form. That opinion is that the career education concept is as yet ill defined and no teacher preparation curriculum revision or development should occur until the underlying purposes and thrusts are clearly understood and generally agreed upon.

PARTICIPANTS' EVALUATION
Career Education: Concept to Implementation in Higher Education
Inn at Otter Crest
April 20-21, 1977

Separate instruments were used for each of the two days of the workshop. Responses for each of the two days are summarized and analyzed below, followed by an overall summary for the entire workshop.

April 20, 1977
Of 87 persons participating, 51 (59%) completed and returned the Participants' Evaluation Form. On a scale of 1 to 9 with 1 as the low and 9 as the high, the mean rating given by the respondents relative to the level to which three objectives were achieved was 6. These objectives were:

- More aware of the conceptual foundations of career education
- More aware of career education implementation in higher education programs nationwide
- Better able to infuse career education concepts into professional education courses and academic disciplines

The mean rating given by the respondents to the level to which the fourth workshop objective was achieved was 5. That objective was:

- More aware of career education implementation in higher education programs in Oregon

The Participants' Evalaution Form invited comments and/or recommendations. The comments were generally positive about the format content and process of the workshop. The comments can be summarized in four composite statements -- two positive and two negative:

- Good balance between the theoretical and the practical; the presenters were suitable cross-section of "intellectuals"
- Generally fast moving workshop in a comfortable learning environment
- Need to strengthen attention to implementation of infusion of career education in college and university courses
- Need more process (at least discussion) and less lecture; there was some redundancy with previous workshops

Asked what they learned that they would use, the respondents mentioned the following ten things most often:

- The need for career education
- Clearer conceptual base for my teaching "how to" models
- Plan of attack for infusion -- sequential in nature
- Insights into systems, leadership and administrators values
- Record keeping for speciifc student career education competencies
- The notion that greater flexibility can enter the system
- Not to tie career education necessarily to curing youth unemployment
- Delegation of responsibility, within and outside of faculty
- Need for community involvement, including having community representatives teach
- Significance of the chief administrator's support

April 21, 1977

Of 87 persons participating, 57 (66%) completed and returned the Participants' Evalaution Form. The respondents mentioned most often the following the things they learned and will use:

- To work on establishing a credible evaluation instrument; set measureable standards
- Answers to some tough questions asked about career education
- To set criteria for failure as well as success
- How to incorporate basic skills into career education
- The use of unobstrusive measures
- Data need to include case studies and peoples' long-range life plans
- Ways to infuse and ideas for testing
- Specific pros and cons of career education, based on data
- The art of documentation
- "What we measure defines the program"

Asked for comments and/or recommendations, the respondents gave suggestions that may be summarized as follows:

- Recommend that Dr. Datta's presentation and data sources be sent to all consortium members
- A thorough presentation
- Dr. Datta's presentation will make an excellent basis for research in career education

- Have ICCE sponsor a two-day training session on evaluating career education -- bring in evaluation specialists and make this training the whole focus of the workshop
- Use Dr. Datta's ideas in a doctoral research seminar

The four workshop objectives were moderately well attained. The mean ratings of 6 on a 9-point scale on three objectives and 5 on one objective support this observation. The frequency of the ratings relative to each of the objectives form a normal bell-shaped profile with one to five responses at each extreme and the highest frequency at the mid point (5) on the scale.

The workshop participants were able to identify on each day of the workshop at least ten specific things they learned and will use.

There was a noticeable absence of participants at this workshop calling for "definitions" of career education. There seems to be general satisfaction now, among persons attending the ICCE workshops, about the conceptual base of career education and its potentials and limitations.

INFUSING PROFESSIONAL EDUCATION COURSES WITH CAREER EDUCATION

Willamette University
December 2-3, 1976

December 2, 1976

8:30 AM REGISTRATION

9:00 WORKSHOP OPENING

WELCOME -- William Berberet

9:30 WORK SESSIONS

- Group I -- Social, Cultural and Psychological Foundations of Education
- Group II -- Instructional Methods and Materials in Reading and Language Arts
- Group III - Instructional Methods and Materials in Social Studies
- Group IV -- Instructional Methods and Materials in Science and Health

11:30 PANEL: WHAT CAREER EDUCATION COMPETENCIES WE LOOK FOR IN HIRING TEACHERS?
John Davies, Robert Hunter and Hartley Troftgruben

1:30 PM WORK SESSIONS CONTINUED

4:00 PANEL: REPORT OF COMMISSIONERS CONFERENCE
Rod Groshong and Virginia Wales

December 3, 1976

8:00 AM ICCE MEETING

8:30 WORK SESSIONS CONTINUED

10:30 PRESENTATION: SEX ROLE STEREOTYPING IN CAREER EDUCATION
LaRae Glennon

12:00 NOON PANEL: WHERE DO YOU GO FROM HERE?
Wesley Caspers, Allen Lee and Phylis Butler

DIRECTORY OF PRESENTERS
December 2-3, 1976

GROUP I -- Social, Cultural and Psychological Foundations of Education

Team Leader -- Chet Bowers, University of Oregon

Team Members -- Donald Van Houten, University of Oregon
William Fitzgerald, Oregon AFL-CIO
Charles Frost, Tektronix
James Wallace, Lewis and Clark College

GROUP II -- Instructional Methods and Materials in Reading and Language Arts

Team Leader -- Herman Hughes, George Fox College

Team Members -- Zola Dunbar, Portland State University
Roger King, Oregon State University
Kenneth Williams, Sherwood Middle School

GROUP III -- Instructional Methods and Materials in Social Studies

Team Leader -- Doyle Slater, Eastern Oregon State College

Team Members -- Don Feller, Tigard High School
Denise Lewis, Central Elementary School
John Clyde, Career Information System

GROUP IV -- Instructional Methods and Materials in Science and Health

Team Leader -- Fred Fox, Oregon State University

Team Members -- Mike Fiasca, Portland State University
Gene Craven, Oregon State University
Margaret Smith, Oregon Department of Education

CAREER EDUCATION: CONCEPT TO IMPLEMENTATION IN HIGHER EDUCATION
The Inn at Otter Crest
April 20-21, 1977

April 20, 1977

8:30 AM	REGISTRATION
9:30	OPENING THE CONCEPTUAL FOUNDATIONS OF CAREER EDUCATION Dr. Edwin Herr CAREER EDUCATION AND THE ACADEMIC DISCIPLINES Dr. William Berberet
1:30 PM	MINI-SESSIONS o Career Information System o Monitoring Teacher Education Competencies in Career Education o Academic Discipine Awards in Career Education o Infusion of Career Education Concepts into Teacher Education Programs at OCE o What Should Career Educators Know About Work? o Community Resources Utilization
2:40	CAREER EDUCATION AND THE GENERAL SCHOOL ADMINISTRATOR Dr. Grant Venn
3:50	STEPHEN F. AUSTIN UNIVERSITY MODEL FOR CAREER EDUCATION INFUSION INTO TEACHER EDUCATION Ms. Leni Ayres

April 21, 1977

8:30 AM	OPENING
8:35	EVALUATING THE EFFICACY OF CAREER EDUCATION Dr. Lois-ellin Datta
10:45	REGISTRATION FOR OCCVA CONFERENCE
12:00	LUNCHEON KEYNOTER -- THE ADMINSTRATION OF CAREER EDUCATION Dr. Grant Venn
2:00 PM	CAREER EDUCATION IMPLEMENTATION SESSIONS K-6
7:30	DINNER KEYNOTER -- STATE PERSPECTIVE OF CAREER EDUCATION Senator Fred Heard

DIRECTORY OF PRESENTERS

April 20-21, 1977

CAREER INFORMATION SYSTEM

Ed Anderson, Oregon State University
John Clyde, University of Oregon
Larry Kenneke, Oregon State University

MONITORING TEACHER EDUCATION STUDENT COMPETENCIES IN CAREER EDUCATION

Wesley Caspers, Linfield College

ACADEMIC DISCIPLINE AWARDS IN CAREER EDUCATION

Jim Lyles, Willamette University
Alan Robertson, Lewis and Clark College

INFUSION OF CAREER EDUCATION CONCEPTS INTO TEACHER EDUCATION PROGRAMS AT OCE

Jim Ellingson, Oregon College of Education
Dale Harp, Oregon College of Education

WHAT SHOULD CAREER EDUCATORS KNOW ABOUT WORK?

Bill Harris, University of Oregon
Dale Sturdavant, University of Oregon

COMMUNITY RESOURCES UTILIZATION

Andy Jacobs, Institute of Public Affairs Research

MAJOR PRESENTATIONS

THE CONCEPTUAL FOUNDATIONS OF CAREER EDUCATION

Dr. Edwin Herr
April 20, 1977

During the 1950's and 1960's there were several major projects focusing on different problems which were ultimately wedded together to create much of the substance of career education. In addition, there is the emergence of evaluation bases which itself stimulates a continuing dialogue about the conceptual foundations of career education. And finally, there is a network of criticisms and the need to respond to them as well as a continuing awareness of social political issues upon which career education impacts and this too represent some of the structure, some of the feeding into the conceptual foundations for career education.

Obviously, I don't have time to deal with each of these in any particular depth, but I do think it would be unfair to not touch upon these as best I can in the time available and so I shall do that.

Many persons, as you well know, accept January 1971 as the spontaneous birth of career education. And the changes that were called for in American education at that time beyond dispute were in some cases sufficiently comprehensive to deny the need for any real extension of what took place in 1971. But there is obviously much more to the story of career education than either January 1971 or the educational changes that were called for at that point in time.

Dr. Marland's speech in January 1971 and the many which followed it in rapid succession gave visibility and credibility to career education. But neither the term nor the concepts that it embraced were without precedent in American education history. Commissioner Marland's emphases on career education extended an evolutionary process which had been building rapidly during the 1960's but which had thematic tracings back into the earliest days of the American Republic. The most immediate stimulus to the introduction of career education in 1971 apparently was a call from John Erhlichman whose name you may recall, then Chairman of the Domestic Council, in late Fall of 1970 to the USOE in which he asked, on behalf of the White House, that the place of vocational education be increased in the federal roll without an increase in budget. Feeling that such an approach was too limited a response to the problems of American education, Dr. Marland breached with his staff the idea of a total reform of education that would certainly embrace vocational education as a major element but which would also relate the occupational aspects of human development to all levels of learning and to all relevant parts of academic instruction. Dr. Marland's staff wrestled with that idea for several weeks, labored over the name for several weeks before deciding upon "career education." The final decision to go with career education came a few weeks before Commissioner Marland had to address the National Association of Secondary School Principals in Houston in January 1971. His decision at that time was to introduce the idea and its priority in the Office of Education even though these were still in rough form. There then followed a range of conceptualization efforts to refine and to operationalize the term which will continue to the present time.

A climate in the USOE supportive of the concepts introduced by Marland in 1971 had been in existence for some time. Such a circumstance, I think, is evident in a speech, a fairly little known speech by most people, by U.S. Commissioner of Education James Allen the year before Marland presented his concepts in Jaunary 1971. Dr. Allen at that time was also speaking before the National Association of Secondary School Principals in January of 1970 in which he stated, "It is the renewed awareness of the universality of the basic human and social need for competence that is generating not only increased emphasis today in career education but a whole new concept of its character and its place in the total education enterprise." These emphases of Allen and Marland were reflections that throughout the decade 1960-1969 a series of forces were mounting which suggested modified directions in American education. Many significant pieces of legislation bearing upon manpower, employment, education innovations, vocational education, had been passed by the Congress. Several prominent panels of advisors on national education and manpower issues had been enpowered to make recommendations on needed policies. The importance of vocational education itself had been reasserted twice during that decade in 1963 and 1968. A number of significant forces were at work in the larger society which served to assert the validity of career goals as a part of the educational process, not as by-products, but as central aspects of the educational mission of the country.

A special interest of the genesis of career education was Part D of the Vocational Education Act Amendments of 1968. Many of you already know that story, but at that point Part D was concerned with the development of exemplary programs and projects in vocational education. In particular, such projects were to develop prevocational efforts in the elementary and the junior high schools to create new curricular thrusts in vocational education and in general broaden the relationship between vocational education and the larger educational community of which it is a part. Such perspectives tried to reflect the need for vocational education to become more personally oriented rather than anchoring its emphases in the needs of the occupational structure almost exclusively. Such an emphasis was further stimulated by the findings of career development about how persons make vocational choices, the importance of information and how to use it, and the effects of work values and attitudes upon self identity as well as worker adjustment. Indeed, the Exemplary Programs and Services Branch of the Division of Vocational and Technical Education in the USOE said in 1971 in a memorandum that the roots for such a system, in which they were referring to the career education system which at that point was in a very prototype stage, in fact go back into many years of basic research on career development theory. There were a lot of significant influences being stimulated by the USOE during the decade of the '60's which began to converge in the late '60's and the early years of the '70's.

Let me recite just a few of these which represented some of the conceptual mix if you will: The report, "Education For a Changing World of Work" which was prepared by a panel of consultants appointed by President Kennedy in 1961; the report "Vocational Education: The Bridge Between Man and His Work" published by the Advisory Council on Vocational Education in 1968 which advocated many reforms in vocational education; Dr. Venn's book "Man, Education and Work" published by ACVE; the National Conference on Exemplary Programs and Projects in which papers were prepared and given in Atlanta in 1969 talking about such things as unifying an entire system of education around the career development theme or promoting elements of a model to develop career development interests in youngsters in elementary and junior high schools.

At the same time, however, we had been in this country investigating and developing occupational cluster concepts as a way of delivering both exploratory and preparation aspects of career education. The University of Maryland has been active in developing and testing cluster concepts in Maryland schools in 1965. McClosky had been doing similar work at Washington State University. Cunningham, too, had been so engaged.

Many of the experimental and developmental projects during that decade focused upon increasing student awareness of career options, providing more hands-on experience in career cluster areas, developing competency-based career preparation. These things were going on at The Ohio State University, UCLA and The Technical Education Research Center. Various research and developmental approaches had been underway also during that period of time to describe, to analyse, to provide career guidance. Some of these involved computer-based programs. Others used multi-media efforts. On balance, however, they were conceptual frameworks for viewing career guidance as involving specific goals and behavior objectives, a variety of processes and resources which were tailored to meet specific objectives and evaluative techniques that determined the effectiveness of these kind of approaches. Such perspectives also began to elevate the developmental,as compared with the remedial potential of career guidance, to support broader educational goals of self understanding, career awareness and decision making.

Obviously, these kinds of influences which the U.S. Office of Education was able to recall when career education began to surface in '70 and '71 were not isolated instances that were occurring without some kind of external stimuli. There were several forces at work in the larger society which provided this kind of conceptual feed-in. Let me suggest only a few of them.

The one thing that I think we need to reassert and remind ourselves is that the United States entered the 1960's in a climate of unemployment. Unemployment seems to be a very recent problem to us and yet unemployment in the third post-Korean War recession exceeded 8.1% which was unadjusted for seasonality in February 1961 as compared to 7.6% in February 1976 or 7.9% in 1977. And it then caused unemployment to become a key issue in this country for the time really since the Great Depression in the '30's We also began to realize, and these figures have been reasserted recently, that when we talk about the matter of unemployment and its cost to this nation, we have to talk in terms of every percentage point of unemployment costing about sixteen billion dollars a year in gross national products, $14 billion in lost revenue, another $2 billion in costs of services to the unemployment. So as President Kennedy came into office, he came in to that kind of milieu and the debate about why and how to respond to that kind of cyclical involvement has continued and continues to the present time.

Against this context, as you remember, America launched a variety of laws which came to be known as anti-poverty programs and their focus upon the severe socio-economic problems of large segments of the population. Those who were in the self-perpetuating cycle of welfare, those who were dislocated by automation, those who were insufficiently equipped to cope with the onslaught of change and occupational educational requirements bearing down upon them.

This particular litany of legislation, while originally intended to provide training and retraining to those occupationally displaced or to realign educational components with social needs, became the crucible in which it was found that the achievement of such goals depends not only upon people's performance, but also upon their psychology. It became obvious that many people being retrained or being taught occupational skills were unlikely to change their work history dramatically unless they also had the opportunity to relate these occupational skills to their self attitudes, to changes in personal habits, to emotional responses to life situations, to attitudes toward work, to experiences in planning and transitional adjustments to new jobs. Gradually but persuasively, events during the decade of the '60's demonstrated that work preparation, employability, job readiness, if you will, involved more than the acquisition of technical or occupation task specific skills. Also involved are the personal knowledge and the attitude which facilitates choice or commitment to planning, as well as the learning and use of such technical skills. It further became obvious that such needs to obtain employability skills, self understanding, knowledge of available options, planning or decision making skills by which one could execute these plans was not limited to the occupationally displaced, but was extended to all youth and to adults anticipating entry or reentry into the labor force.

There was a second factor here which needs to be taken into account, it seems to me, in terms of the conceptual frame that we're talking about during this particular period. We could talk about the onset of what might be called the democratization of opportunity and the rise of the identity society in this country. We were coming to view ourselves during the 1960's as an identity society, a society where one in known by his or her choices, a society where answers to "who am I" sometimes need to deal almost obsessively with questions of personal definition. Doing one's own thing became a credo. Rapidity of change, shifting values and belief systems, a cacaphony of achievement images pouring in upon the individual was producing what, as you well know, Toffler has called "information overload."

There was an interesting irony of this period. That is many persons suffered information overload at the same time they experienced information deficits. The incongruity of these two situations is that while our society features instantaneous communication through television and radio about newsworthy events, sensual stimuli, global goals to which people might aspire, it provides few opportunities or systematic opportunities and mechanisms to assist young or older people to clarify their personal perspectives in life, to analyze their strengths and

and weaknesses, to determine what information they need and how they might obtain it, or figure out how they can execute the plans which are important to them. And so, in addition to the deficits of specific knowledge about self characteristics or preferences, many persons are physically and psychologically walled off from their available choices and divorced from direct information about work activities, and the rewards of different kinds of work they need as the basis for their decisions.

I think there is a related phenomenon here which needs to be addressed very briefly and that is that in America since the late 1950's, as we have rapidly advanced the democratization of opportunities in education and work, we have created some other problems. As artifical barriers to opportunity because of sex and age and religious beliefs are struck down in law and more importantly in practice, individual responsibility to choose knowledgeably and effectively rises. If traditional scapegoats for not being responsible, for not achieving, for not finding personal fulfillment are taken away, the press upon the individual to figure out who he is - and to plan accordingly becomes extremely intense, so the assumption which began to flow out of this work during the decade of the 1960's was that in a society of great technological and societal complexity, one set on a course of democratization of opportunity. It is self knowledge, it is knowledge of personal and pertinent educational and occupational alternatives, planning and decision making skills which differentiate those who are buffeted by whim, by chance, by immediate gratification from those who can operate purposefully and set their sights with some kind of meaning.

A third factor, it seems to me, that I want to mention very quickly is simply the availablity of career guidance and counseling. One factor which has affected the congenial climate for career education is the continuous evidence that there has been a lack of career guidance and counseling services in America which relates to the kinds of things that we are talking about. In an era of intense psychological concern, and one characterized by serious issues of educational and job aspirations for the youth and for many adults, the non-availability of adequate career guidance in schools and agencies, in community mental health agencies is quite apparent. As a matter of fact, it is not unfair to suggest, I think, that career education has, in fact, institutionalized what had typically been career guidance objectives and said that these are in fact central missions of an educational process in this kind of society.

A fourth factor which feeds in then to the conceptual frame for career education is found in what has become known as career development research and theory, the set of principles advanced through that kind of rubric. The line of theory and research that I am talking about here included the work as such persons as Ginsburg and Super and Tiedeman and many others, which supported the notion that career education to be viable needs a longitudinal structure and a comprehensive perspective if its goals are to be met.

The career development concepts pertinent to career education included the following: One, career development is an on-going process which extends from infancy through adulthood, and that if one is trying to place programs of implementation that are going to facilitate career education, one must begin in the elementary school. One cannot wait until grade 10, grade 11 and grade 12.

Two, that career education can be described in terms of learning tasks which are differentially important at different life periods, and that is to say that the kinds of questions that people ask in the elementary school, in secondary school or community college or in adult life are different. They are not unimportant. They change and thus mechanisms need to be available which respond to these kinds of changing requirements of people in terms of the learning tasks that they engage in the career development sense.

Three, career development is modifiable, that efforts to intervene in the process of career development can in fact change one's attitudes, one's knowledge, one's skills which comprise it.

Four, that career development is influenced by many stimuli, therefore, to compartmentalize, to isolate the programmed experiences, to influence career development in terms as career identity and career exploration, career preparation is to overlook all types of potential experiences as well as the attitudes of those who monitor these experiences--parents, teachers, and so on.

Five, career maturity can be defined in terms of the attitudes, the knowledges, the skills which make it up and these in turn can be translated into goals and objectives which can be used to guide educational responses in a variety of settings.

Six, career development has as a central focus the translation of self knowledge and acceptance into information processing strategies, into planning strategies, into ways to think about affecting one's own future through a variety of roots.

And, seven, career development can be seen as a central theme of education at all levels since its elements embrace the acquisition of career identity, self identity, the purposefulness with which educational opportunities can be viewed, the way one approaches career preparation opportunities, the acquisition of occupation task specific skills, and so on.

Collectively then, these career development concepts, while I have oversimplified them here, created a kind of mortar by which to cement together other pressures for career education into a coherent frame of reference. They gave promise that there could be described a set of goals which were important to youth and to adults which had an effect upon work entry and satisfaction and adjustment. They came into confluence in a sense with the ideas of survival skills which were beginning to operate early in the decade of the '70's and the end of the 1960's. These skills are the kinds of things that Coleman and other people were talking about who were saying that in this society education has got to directly deal with certain kinds of survival skills if people are going to be able to cope effectively with the kind of complexity with which they are faced, complexity at a personal level, not in terms of a state mandated kind of role or behavior or what have you.

Two, that career education can be described in terms of learning tasks which are differentially important at different life periods, and that is to say that the kinds of questions that people ask in the elementary school, in secondary school or community college or in adult life are different. They are not unimportant. They change and thus mechanisms need to be available which respond to these kinds of changing requirements of people in terms of the learning tasks that they engage in the career development sense.

Three, career development is modifiable, that efforts to intervene in the process of career development can in fact change one's attitudes, one's knowledge, one's skills which comprise it.

Four, that career development is influenced by many stimuli, therefore, to compartmentalize, to isolate the programmed experiences, to influence career development in terms as career identity and career exploration, career preparation is to overlook all types of potential experiences as well as the attitudes of those who monitor these experiences--parents, teachers, and so on.

Five, career maturity can be defined in terms of the attitudes, the knowledges, the skills which make it up and these in turn can be translated into goals and objectives which can be used to guide educational responses in a variety of settings.

Six, career development has as a central focus the translation of self knowledge and acceptance into information processing strategies, into planning strategies, into ways to think about affecting one's own future through a variety of roots.

And, seven, career development can be seen as a central theme of education at all levels since its elements embrace the acquisition of career identity, self identity, the purposefulness with which educational opportunities can be viewed, the way one approaches career preparation opportunities, the acquisition of occupation task specific skills, and so on.

Collectively then, these career development concepts, while I have over-simplified them here, created a kind of mortar by which to cement together other pressures for career education into a coherent frame of reference. They gave promise that there could be described a set of goals which were important to youth and to adults which had an effect upon work entry and satisfaction and adjustment. They came into confluence in a sense with the ideas of survival skills which were beginning to operate early in the decade of the '70's and the end of the 1960's. These skills are the kinds of things that Coleman and other people were talking about who were saying that in this society education has got to directly deal with certain kinds of survival skills if people are going to be able to cope effectively with the kind of complexity with which they are faced, complexity at a personal level, not in terms of a state mandated kind of role or behavior or what have you.

Some of these survival skills are essentially redundant to what I have said, but let me list some of these that many authors, many observers, not only in career development, not in vocational education but in the larger society have talked about being important ingredients or outcomes of education. They include the knowledge of one's personal strengths and weaknesses, preferences, values, the skills to relate these to educational and occupational options, the ability to make realistic self estimates; the ability to use existing exploratory resources; the knowledge of educational, occupational, social, life style options, and the ways of looking at interactions among them; the ability to choose, to understand, to apply the decision making process; skill in interpersonal relationships; the ability to work cooperatively with others; understanding of worker-supervisory relations' adaptability to different persons and conditions; employability and job seeking skills; understanding and knowing not only how to find job openings; and also how to act upon that information in terms of employment processes; understanding of the interdependence of the educational and the occupational structure; understanding of personal roles as an employee, as a manager, as a consumer, an entrepreneur; knowledge of how to organize one's time and energy to get work done, to set priorities; ability to see oneself as someone, a person of some worth and dignity as a basis for thinking of oneself as something; and certainly the ability to acquire marketable, occupational, task specific skills. These kinds of survival skills were pervading all kinds of national and local thinking and fed into the conceptual framework of career education.

Let me divert just for a moment here and suggest to you that what I have talked about primarily here has been in American context and what I will talk about for the remainder of my remarks will be in American context. But it would be less than fair for us not to recognize that efforts similar to our own conceptions of career education have been occurring in several other parts of the world. By and large, such movements to deal with prevocational understanding, career development emphasis have arisen in the industrial and post-industrial nations, the so-called developed nations. In 1970, for example, the Soviet Union in collaboration with UNICEF sponsored in Moscow a seminar on prevocational training, educational and vocational orientation within and outside schools. That seminar reflected the earlier development in the USSR of a comprehensive career development system which has home and school and industry based components.

Sweden, too, has pioneered a variety of educational forms which tried to link general and vocational education, facilitate individual choice and develop other kinds of components comparable to American models. Particularly, Sweden has pioneered community involvement, resource use and strong emphasis on cooperative work experience.

Great Britain has been embarked on a national effort to create what they call Careers Education for several years, primarily aimed at the thirteen to sixteen year old population, but certainly being extended now into the higher education community and the adult community.

Other nations, primarily in Europe and Scandinavia, could be cited as moving forward in areas that are pertinent to career education. It would be foolish to argue, I think, that because of differences in political beliefs or economic systems the goals of each of these education efforts are identical. They're not. Free and informed choice means different things in these societies. The needs of the individual vs. the needs of the society are perceived in different balances in each of these nations.

However, the pervasive question that one might ask, it seems to me, is does a nation reaching a certain level of industrialization, occupational specialization, economic contingency, require shifts in its educational content and in its processes to accommodate the kinds of goals that we are describing here as belonging to a conceptual base, a crescendo of support for career education. I don't know the answer to that, but I am inclined to believe that there is an affirmative answer to that particular question. Whichever way one answers the question, I think, requires that American theorists, American researchers, American practitioners in career education recognize that there are international developments responding in many ways to similar forces as are present in the United States.

Let me turn if I can quickly now to a few observations about career education from 1971 to today. Then I want to jump to some criticisms and some things like that.

Since 1971 in Commissioner Marland's speech there have been efforts under way to translate into operational models many of the concepts which he introduced. However, since career education represented in 1971 more than the vocational education, there was no specific home, no specific legislative support for the concept. At least none that was totally compatible with the career education initiatives that were under way.

Since that time, I think a number of things have happened in terms of federal leadership particularly. Career education according to the Education Amendments of 1974 is now the law of the land. Unlike 1971 it now has a home both in the USOE and NIE with a direct line to the Commissioner of Education and to other important decision makers. It has its own Office of Career Education; specific legislation, and clearly labeled federal offices to monitor and to stimulate its progress. Career education no longer, at least theoretically, lives parasitically from vocational education funds or assessments against other educational legislation, but has its own categorical monies, limited though they may be. And so that particular point is a considerable overstatement of reality, except that the conceptual frame that its own legislation represents is a terribly important step forward from 1971. The USOE and the NIE have defined their own responsibilities. They are working interactively and in very effective terms, I think, to bring forward program advances, research, evaluative basis, and all the rest of that kind of thing.

Funding. As you probably know in the Education Amendments of 1974, the funding was principally demonstration funding. There was the establishment of the National Advisory Council in Career Education, the Office of Career Education, the Director of Career Education, and so forth. Much of the money that was started with in 1971 was money which is discretionary to the Commissioner out of vocational education funds and several other titles--ESEA III, monies from the Education of the Handicapped and so forth and so on.

Right now we are sitting on top of the Perkins Bill which has just been passed in Congress, HR7, in the House, with a vote of 392 to 14 which is a very significant indicator in some ways of the support that career education has not only from a demonstration standpoint but from an implementation standpoint. On the other hand, we are a long way from being home free on that one. Nevertheless, HR7 is the first direct attempt to provide an implementation fiscal base rather than a demonstration fiscal base and the kind of testimony supporting it is very heartening to people who believe in career education. But as I say, we are a long way from there. The Senate bill has not yet been introduced. The appropriations vs. the authorizations are in some doubt. The basic point I am trying to make is that there has arisen in the several years legislative support, homes for career education, and people speaking in clear and unequivocal terms. It is a federal priority.

Throughout this whole period of time it's important to recognize that the states themselves have been highly active. The states have been more active in many ways than the federal government and, indeed, it's fair to say that much of the conceptual feedback and refinement that has occurred in career education has occurred because of state efforts rather than federal efforts. However, it is also fair to note that since Dr. Marland introduced the term, the federal government has come to the adoption of a policy paper and a definition of career education. The Education Amendments of 1974 define career education in their own right. HR7 now has a definition of career education. And so while these are somewhat less tidy than some people would like, it is fair to say that the federal government has begun to reduce the vagueness, the ill-defined concepts that it began with and I tried to explain to you why it was as ill-defined and vague at that point in time. There are a lot of other reasons which we could talk about.

It is also useful to note that a large number of national organizations, agencies and associations have endorsed career education since 1971 and they, too, have created position papers, conceptual feedback, conceptual feed-in about what career education ought to be, what it is, what it can do. That whole mix has caused career education to be a dynamically evolving term as one might expect. Another matter which I want to address to you, and I don't have time to deal with in the depth I would like, is that I think another indication of the change in career education is the fact that there has emerged the beginnings of a evaluative base for career education. The beginnings of a system of both product and process findings pertinent to career education is now becoming available. Appropriate instrumentation is being looked at, is under formulation, pertinent research designs are being advocated and locked at and other evaluative procedures are being formulated. Time really doesn't permit an analysis of findings. I just did a "state of the art" paper for the ERIC Clearing House on Career Education about research in career education and there are lots of things that could be said about that. Let me just cite you a couple of quick dimensions of these findings.

By any measure state and local efforts labeled as career education in content are current throughout the country--no question about that. The largest amount of effort in career education still continues at the elementary and junior high school levels. There are somewhat less frequent examples at the senior high school and we're simply nibbling in many ways at the edges in higher education and the adult community in my judgment. And I think it's supported by evaluative findings. Surveys of parents, teachers, students about the goals of the intent of career education tend to be positive with almost no exceptions. There are, however, different levels of enthusiasm depending upon the disciplines that you talk to--elementary school teachers being the most enthusiastic, science and math teachers not being terribly enthusiastic. They are not mad about the concept; they just don't think they ought to buy it. And you get into some of these kinds of differentiations certainly.

Another kind of finding that one finds is there is really little evidence that career education efforts are being specifically tailored to the needs of special populations. You find that in a number of projects the term "career" seems to be misused. What is actually occurring is an occupational focus, an emphasis on an immediate choice rather than intermediate and long term planning. Similarly, in such approaches very little emphasis seem to be given to such things as voluntarism or leisure time or implications of work conditions and characteristics for different life styles. So, in some cases, you see a very, very narrow definition of the term.

Many evaluation reports tend to be descriptive of the types and the amounts of participation by teachers and students rather than the kinds of outcomes that are occurring in terms of student learning. On most of the career education outcomes that one looks at, the results are somewhat mixed, while there are usually statistically significant changes reported on either pre-post or experimental control basis. One can find non-significant results in the same control at the same general grade level in some other evaluations. It appears as though career education evaluations generally report significant changes in knowledge of a wide range of occupations and career occupational awareness, motivation, work habits, attitudes and attitudes toward school.

Self concept changes, increases in academic achievement, changes on some of the instruments like the career development inventory and so forth are more problematic. Some projects achieve significant results; some do not. In the absence of standard assessments that a treatment, or a process, or a teacher behavior labeled the same way means the same from project to project it becomes very difficult to account for the variance in the outcomes that are reported in different studies.

Similarly, while career education goals are titled in the same fashion from project to project, they are frequently assessed differently with instruments which are basically uncorrelated and you find out if you got significance in both, that either the processes are different or the instruments are measuring a variety of different things and you don't really know what that means.

But if you take the aggregate weight of the findings about career education, they are really quite positive--particularly, it seems to me, if you recognize that most of the evaluation that has taken place has been done within the natural environment by people who themselves are not terribly skillful as evaluators because that has not been their primary function. And so we may in fact be more pessimistic than we ought to be about some of the results. We find too, for example, some findings where the academic learning of students does not increase in career education programs or in experienced based career education programs. It also does not deteriorate. And that becomes a very important finding, it seems to me, and that is even when you add these other components of career planning, career orientation, and all the rest of that sort of thing. While it may not hike academic achievement significantly, it also doesn't push it aside and cause it to deteriorate. That in itself is a very, very significant finding and one can look at that in a number of different places.

In terms of the implications of studies of staff development we find most of them dealing with inservice. There is not really very much information on preservice implications of training people in career education roles. Moving away from that very quickly, I will be glad to talk with you people about this later.

Since the diversity found in conceptual efforts emanating from all these governmental sectors and from a range of organizations from the private sectors, it is very difficult to talk about a typical career education effort. In this great country the conditions from which career education received its seminal pulses do not occur uniformly in all school or agency settings. You do find regional characteristics, you do find population differences that affect the adaptation of career education ideas.

Even within this diversity, however, there are some conceptual efforts which have evolved-general principles and they're fairly prosaic. But let me identify a couple of these for you before I turn to criticisms. One is that career education and vocational education are not interchangeable terms. They just are not. Vocational eudcation is a vital component of a total concept of career education, but it is not a synonym for career education.

A second is that career education can not be achieved by any one group of persons acting in isolation. Parents, personnel in community settings, counselors, administrators, teachers of all types have interdependent roles in the process, contributions to make out of their own mentality, their own attitudes.

Three: Career education activities have got to be planned and coordinated, not simply random add-ons to existing curricular or other resources or processes. One of the things that you will find if you look at the evaluation studies is that you get a lot of re-titling of ongoing educational processes which does not at all reflect changes in the basic assumptions or the goals. And so when you look at some of the washouts on career education significance, what you find is that the titles have been changed, the substance hasn't been; and what we also find is that if one is really going to do the job, it's got to be a planned job, a systematic job, and not simply some title with cosmetic appeal.

The fourth concept is career education can be done in many ways. There is no one right way. Career education is a collective process. There are lots of ways to get to the goal. The problem is knowing what you are trying to get to, defining where you want to be and what impact that is going to have on the people you are working with and then developing processes which are likely to get you there. In a sense, parenthetically again, but I think it is important to recognize that career education really represents a series of hypotheses about processes that are likely to change conditions which somebody has identified as terribly important. And so what we have are a lot of theories of intervention, a lot of hypotheses about intervention which are trying to be or are being related to a variety of social conditions, problem areas that need to be ameliorated in some way. And all the data isn't yet in, but it is clear that to simply do this kind of stuff randomly is not going to do the job.

Career education in its fifth principle is not another curriculum completing with college preparation, vocational education or general education. Instead, it is pretty clear that it has been accepted across the country as a set of experiences which can be integrated into each of these to increase their potence and their career relevance.

Let me turn briefly to some of the criticisms and to respond to them because the criticisms themselves obviously represent conceptual stimuli. The responses we are trying to give create more conceptualization and that's important. First, an ongoing criticism is that career education is not defined. I think that until September 1974 such a criticism might very well have been addressed to the federal level of career education activity. However, as I have tried to indicate, since that time the U.S. Office of Education has increased its own conceptual adaptation in terms of the policy papers, in terms of the conceptualization in definition in legislation. And so that particular criticism is falling away.

Criticisms of a lack of a definition of career education have never really been as valid at the state level as they have been at the federal level. While some have not yet adopted such definitions, the majority of states and territories have done so. Many of these are in conformance with the federal definition, but many of them go much beyond federal definitions.

Second. Career education and vocational education are synonyms--another ongoing criticism--seems to me that at a theoretical level this has never been a valid criticism. In the sense that in virtually all models of career education national and state the goals sought are much broader than those traditionally sought in vocational education. This is no way to put vocational education down. It is to recognize that the vocational education processes, goals, and assumptions are different from those of career education and that career education takes place in different educational levels, with a fuller population, with all students, which vocational education has not aspired to traditionally, and I don't think they are now, but they are a vital component to the process. At a practical level, not the theoretical, the criticisms of career education and vocational education being the same reflects, I think, some confusion and some shallow understandings and practice in regard to the substance and the intent of career education. In some cases, as I said, processes have been renamed career education, which were in fact and continue to be vocational education in the fairly traditional sense. In other cases, the placement of career education within bureaus of vocational education have caused people on the outside to confuse certain kinds of issues. I find, by and large, that the persons who inhabit those bureaus within vocational education but have career education responsibility do not themselves have the confusion, but many of the people who view the structural process do get a confused sense of career education and vocational education being synonymous.

Third. Career education has been supported by vocational education funds. This criticism is both valid and naive at the same time, it seems to me. There isn't any question at the federal level that vocational education monies were extremely important and probably are still extremely important across the country. But it has to be recognized that there are lots of other monies that have been used to support career education beyond the VDA funds--ESEA, Educational Handicapped, Higher Education, Cooperative Research and so forth. Since the Education Amendments of 1974 and with the potential of the Perkins Bill HR7 and probably the Hathaway Bill in the Senate, I think that particular matter is going to be cleared up even more.

Fourth. Career education is anti-higher education--a perennial criticism. I think this criticism really generates more from earlier statements about career education implications for the reduction in college going students which has since been tempered. I think that was a particular kind of statement which was not terribly smart to make and yet it was probably taken out of context in a variety of ways. Nevertheless it was made and some people immediately get turned off by a career education meaning get all the kids out of college and put them in vocational schools or some other kind of stereotype. But, I think, at the moment one can say that as one looks across the observations of career education that they do not devalue higher education but rather believe that it is only one route to a worthy life or to being an important contributor to society. And in this sense then career education, I think, stands in opposition to intellectual snobbery, not to the fundamental importance of higher education for those whose occupational, or professional, or personal goals require it.

I think a second rebuttal to that criticism would suggest that career education argues that the blind choice, not the informed choice of college is really the issue and thus higher education should be selected because compared with other alternatives it is by far the best choice to achieve certain goals, rather than only because everybody has to be some place and some people don't know where else to be but in higher education--and I don't say that facetiously.

A fifth criticism: career education is anti-liberal arts. This criticism, as many of you know has been expressed in lots of forms--career education is anti-intellectual, it's anti-educated man, anti-humanistic. I think frequently in these cases the argument goes that career education, liberal arts, intellectual behavior, humanism, are really oppositional parts of the dicotomy, that they are incompatible in their philosophy and their substance. Another stream of arguments suggest that career education is to strengthen the relationship between education and work, and other goals have got to be devalued or supplanted. On the contrary, it seems to me, that career educationalists would argue that its goals are to help persons find purpose in their lives, to find enhanced relevance in the implications of their educational experiences, to make informed judgments about what types of investments they wish to make in education and work and alternative life styles. It is quite compatible with the original, if not the current goals of liberal arts. Through the ages, the study of liberal arts, it seems to me, was not seen as learning for learning's sake, but it typically had a purposeful, practical, and often a vocational purpose attached to its goals.

Another criticism which I would mention is that career education is a conspiracy to limit the mobility of minority persons. If the intent of career education were to attract people into a limited set of low entry level occupations that would be valid. As I read the models, as I talk with people in terms of career education both in theory and practice, I think its intent is to help people gain perspective, to broad horizons, not to track them.

In conclusion let me simply enumerate for you a couple of other issues which I think are unresolved, that are less rebuttable than the criticisms that I mentioned and that still will fan the conceptual flames for quite a while. One of the questions, it seems to me, is the relationship between career education and unemployment. I think it is a very significant question, I think that we have sometimes tried to sell career education on the basis of its effect on reducing unemployment. I think we frankly have not recognized the fact that unemployment, by and large, is not under the control of the individual nor is it under the control of education. It is in fact an effect of the country and all the rest of these kinds of things. While career educationalists ought to be involved in trying to talk about job development and all the rest of that kind of thing, to say that career education is in fact going to impact upon unemployment in a direct sense, I think, is too simplistic and I think we probably have got to deal with that issue more effectively than we have so far.

Another question, it seems to me, which is yet to be resolved is the relationship between career education and social occupational expectations. We have yet to deal precisely beyond the matter of job availability, the rising expectations of the young, which may not be able to be met by society, as we sometimes engender them. We've got to think about telling it like it is, to help people recognize, it seems to me, the contingencies in which their goals rest rather than overselling the fact anybody can be anything they want. I think that is a blind and unconscious attitude which we've got to deal with quite specifically. We haven't yet come to grips with that. We've got to recognize that there are jobs being created in the white collar sector which are every bit as repetitive and stiffling as in the blue collar sector that some people want to escape. We have to recognize that some of the new jobs that are being created really don't have career lives.

We have to deal with another issue and that is what is the focus of decision making in career education. Is it what exists or what might be? Is it what is now or what trending looks like down the future? I won't deal with that in any depth but it is an important issue. What does it mean that career education is for all students? Does it mean to be taught the same fare, to deal with the same set of values? How do we in fact adapt the content methodology to different readiness levels, different population levels, different questions? I think we have got some answers to that but it's still a question which, I think, we have yet to conceive all the answers to.

Can career education be achieved effectively with the educational structure as it's currently structured? A major intervention strategy has been infusion but it has run into continuing concern about an already overburdened curriculum. It has been reflected in a very great hesitancy in many ways because some people come on with career eduation as though it means starting from ground zero again. There are certain kinds of structural changes that need to be made which a great many people are afraid of. The question is still can it be done, what are its upper limits in terms of the current educational structure?

A sixth unresolved question, from where I sit, which has conceptual validity is should there be a relationship between career education and psychological education. It seems to me that it may be useful now for career educationalists to consider the interface between career education and a number of other movements such as deliberate psychological education, humanistic education, all the rest of these movements. Without looking at their interface, without looking at how they all give certain testimony to the deficits of learning or educational processes and how they do in fact come together at certain points, I think, is probably to fragment our efforts. It would be extremely useful to look at how those kinds of things can be more effectively wedded.

I hope that I have illustrated to you, albeit somewhat superficially, the fact that the conceptual foundations for career education are broad and in some cases they are very deep. I think we are in a very exciting period, and I'm pleased to be here with you. Thank you so much.

"CAREER EDUCATION AND THE ACADEMIC DISCIPLINES"

William G. Berberet
April 20, 1977

A route to career education has been absent from my professional background. Indeed, I come to it very much from an academic background where I have become convinced that career education must become a more integral part of what we do in colleges and universities. This is really the first time that I have been asked to give any kind of major talk about career education and its relationship to academic disciplines. Therefore, I had to give considerable thought to just what the topic means in academic terms.

In thinking over what I would say, an old Dunesberry cartoon featuring Kingman Brewster speaking to a group of Yale alumni was called to my attention. In the cartoon Brewster says, "Good afternoon, fellow alumni. It is a pleasure to address this wonderfully diverse group. There are many kinds of alumni present--tall ones, short ones--but you do share one thing in common." He paused at this point and thought to himself that money was the one thing all Yale alumni shared in common. Then he went on and said aloud, " ...a deep respect for higher education." This amusing cartoon made me think of at least three things related to higher education and its accomplishments. First, the somewhat cynical thought about money none the less indicates that higher education has been very successful in preparing for careers. Second, society generally does not appreciate the effective job we have done in many ways in preparing students for careers. This is a source of concern. Third, the term "money" is a very narrow perception of the totality of desirable outcomes of education.

My thesis in this paper is that we must have a very broad and systematic approach to the educational process which incorporates career education and many other things at the very heart of what we do academically. I suggest that this process must involve consciousness-rating activities beginning at the elementary level with small children and that consciousness development is something that occurs throughout a lifetime.

I have passed out a handout which you might find interesting. The first chart is an attempt to diagram a broad systematic approach to incorporating career education into the academic process in a program I was involved with in New York. A later diagram in the handout shows the survey we made in New York in 1976 of potential government and business employers of our graduates in Environmental Science. The survey suggests that we have a lot of work to do in developing effective communication with potential employers, but the point of sharing this survey with you is to indicate that we felt that activities of this nature were a basic part of our job in offering an academic program.

American higher education is currently engaged in a searching evaluation of its basic mission--its reason for being. This examination has many causes--declining public confidence, rising costs and budget deficits--but, fundamentally, the examination is a quest for meaning in the society of today and the future. On the one hand, the quest reflects disillusionment with the loosening of the bonds of core curriculum which occurred during the late sixties and early seventies. The results of excessive curriculum flexibility are abundantly demonstrated in nationwide tests which reveal a decline in reading and writing skills among college students. On the other hand, this curriculum review is a reaction to a growing conviction that higher education must respond more effectively to a future in which the freshman of Fall, 1977 will be only 40 years old in the year 2000.

The relaxation of liberal arts or general education requirements initiated several years ago may have accelerated three somewhat contradictory educational trends which have characterized the 1970's. One is an extraordinary variety of experimental, often interdisciplinary programs. The second is a rapid development of vocational and career related programs. The third is over-specialized discipline training of majors in degree programs. Often through fragmented approaches to knowledge and learning, these trends may have eroded the earlier more comprehensive trends of knowledge and skill development expected of each student. Curricula began to reflect less and less the diverse and multi-purpose personal and professional reality of the world that is entered after graduation.

The current reform of higher education, which is being publicized about institutions as widely dispersed geographically as Stanford and Harvard, seeks to restore the liberal education tradition. It is focused upon the humanities, upon basic communication and analytical skills, and upon clarification of human values. The movement is a critical adjustment in educational directions.

I have several concerns, however, lest this exuberance become overly nostalgic for the past which we have celebrated recently in many aspects of our culture--movies and life styles, for example. The movement for liberalizing education must incorporate the solid educational gains of the past ten years, of which career education is among the most significant, and address the pressing needs of the future or it will simply swing the pendulum too far back in the direction of general education. The plain fact is that to serve its historic mission higher education must deliver a much more sophisticated product than either the liberal arts tradition or the 1960's reforms imagined.

The present education reform movement has unfortunately selected career education as one of its chief scapegoats. Colleges and universities must accomplish more, much more, to recapture the confidence of a skeptical public and to prepare young people for an uncertain, complex future which most of us don't even want to think about. Approaches to meet this challenge exist for the educators of the 1970's. These provide us with strengths less readily available to the reformers of the 1960's. I wish to focus upon two such strengths in my remarks.

First, the emergence of ecology and systems analysis have enabled us to conceptualize the interrelationships and interdependence of our earth reality in both minute detail and grand design. Growing recognition of the strain on finite resources, over-population, and crowded living space have increased our sensitivity to the necessity for comprehensive approaches to meet human needs to assure society's survival. As a strategy for learning, systems thinking provides a truly liberalizing philosophy for curricula designed to educate for life, citizenship and profession within a broad and integrated context. This new curricula can provide wide exposure to ideas, knowledge and values; proficiencies in a variety of analytical methods and skills; practical wisdom through a richness of applied experiences; and theoretical wisdom in the ways in which all subject matter is interrelated.

Second, the career education movement has been one key which has unlocked the applied dimensions of education and given academic credibility to the career planning process. For purposes of clarification my definition of career education emphasizes learning and approaches to the professional aspects of one's life, not a vocational preparation for a single occupation. As the sensitivity to the interdependence of systems thinking requires a holistic philosophy so, too, does it require a holistic career education that prepares students for professional mobility, a necessity in a rapidly changing world in which a person may experience several major career changes in a lifetime.

The balance of my presentation is an attempt to express a role for career education in a liberal education curriculum, to articulate career education as a planning strategy, and to describe specific applications of career education in academic programs which I have been involved with at Willamette University and the State University of New York. My remarks will suggest that career preparation should be undertaken as a fundamental part of a liberalizing educational system. A procedure or methodology for liberalizing education should involve concrete steps in the learning process. These include the establishment of academic goals and objectives, the presentation of the theoretical content of subject matter--philosophy, knowledge and issues--and the development of analytical techniques, research methods and career and living skills through which experiences are utilized in a real world setting. And, finally, the methodology includes the off-campus application of theory and methods to achieve personal and professional objectives through such activities as career internships, research undertakings on community problems, experimental learning problems. An evaluation of concrete outcomes helps to determine if the original academic goals were achieved and whether the learning process is adequate.

The first diagram that I handed out is an indication that we attempted to outline this holistic approach in our New York program. I want to stress one thing in describing infusion of career education in the academic disciplines. In our strategy in New York we deliberately developed a series of advanced courses in which career skills were a fundamental part of the content. Thus, the environmental science field at the undergraduate level included courses in social survey research, regional planning, computer modeling, and environmental impact assessment, any one of which provides sufficient entry level career skills to land a job.

During the early '70's Willamette University adopted flexible graduation requirements and approved several distinctive interdisciplinary programs. On the one hand, curricular innovations at Willamette responded to the pressure of the late '60's and early '70's for a less rigid core. On the other, they reflected a period of creative thrust for interdisciplinary, applied, and community-based studies. Less consciously, liberalized curricula provided the framework for the emergence of programs which integrated knowledge from several disciplines, offered courses including career skills, and established internships and field study experiences linking the campus and the "real world" environment.

The concept of career preparation has always been perceived in the natural and social sciences as being compatible with the liberal arts. This has been true in a large part because professional preparation and graduate education have been consciously linked, and because laboratories and advanced studies in science have involved the imparting of research skills. These are also career skills. Therefore, it is not surprising that the natural and social sciences have pioneered at Willamette in career preparation. The stance of the humanities toward career education has been much more ambivalent. The humanities have been much more concerned about preparation for life than preparation for careers. At Willamette the elimination of most liberal arts requirements increased anxieties in the humanities about a drift toward careerism. For many of these faculty, resolution of the career education issue involves restoration or creation of certain liberal education requirements, especially courses and experiences which develop reasoning skills and assure written confidence in oral communication.

Yet, at Willamette there is also a strong career thrust in the humanities. Professional programs in the College of Music and Theater combine liberal arts with intensive professional courses of study aimed toward specific careers in the performing arts. Recently, this career orientation received expression in a new professional program of music therapy which includes extensive course work in sociology and psychology, and extensive field experience. A model for integration of the liberal arts and career learning thrust, such as music therapy, may reduce philosophic tensions between these two distinct directions in humanities.

Interdisciplinary and applied programs with career education objectives reflect awareness of Willamette University's geographical, political and cultural environment. As a consequence of its location in Oregon's capital city, Salem, situated in the Willamette Valley and the Pacific Northwest, there are programs that feature a career thrust directed toward government employment and environmental management with a supporting direction in the field of education. My remarks--a kind of Willamette University case study--touch upon four such programs: the environmental science program, the program in urban and regional government, the music therapy program and because Willamette has an outstanding education program, a couple of remarks in that direction also.

The major in environmental science combines a background of environmental disciplines in the natural sciences with related course work in social analysis and environmental management from social sciences. The major is conducted through the Department of Earth Sciences where a core of basic courses are offered which are complemented by offerings cross-listed from other departments. Courses in biology, chemistry, ecology, geography, geology, sociology, economics, and political science are required of all majors. Physics and art courses, to indicate a sense of the range of the discipline, are among the recommended electives. Approximately one-half of each student's college credits must be directly related to the major in environmental studies.

Several characteristics distinguish the career exploration features of the environmental majors. Students are urged to apply thereotical knowledge and analytical skills in field study projects including study in other countries. Students may also enter professional internships in Salem where there are numerous state and local governmental agencies. Finally, each senior major participates in a seminar designed to integrate and evaluate the student's diverse course work and field experiences and to provide specific focus upon career opportunities. Career employment prospects, at least over the long range, appear bright for environmental science majors in both government and industry. Society continues to place high priority on environmental protection through legislation which must be administered by government and adhered to by industry and the public. The impact of recent environmental crisis ranging from food and energy shortages to environmental contamination ensure the importance in this field.

The program in urban and regional government gives a dynamic additional thrust to the notion of liberal education by involving students in one of the most urgent challenges of modern life--the effort to design, govern and save urban areas. This program involves a series of courses in political science, economics, sociology, art, design and environmental science, with an attempt to integrate several disciplines into a comprehensive understanding of the urban environment. The program has four major goals: to provide a bridge between liberal arts and intelligent citizenship; to relate theoretical investigations and academic understandings; to observe and participate in actual political and governmental processes in order to encounter the dynamic relationships of cooperation and tension among various governmental organizations as they confront urban and regional problems; and, finally, to provide students with a practical background for future studies of careers in government services. The program, again owing to environment to a great extent, includes a highly successful career internship primarily in association with state and local governmental agencies. A large number of graduates have found a career in government services. A unique feature of the program has been the frequent with which government employes themselves have attended classes to further their career objectives.

Music therapy is the use of music to aid the patient client in the restoration and improvement of mental and physical health. By using music in the therapeutic sense, the music therapist can influence behavior changes which positively affect personal adjustment in the environment. Music therapists work in a variety of clinical and educational facilities--hospitals, community health centers, mental health centers, nursing homes, pubic schools, correctional agencies, medical schools in universities. Within these facilities the therapist works with the physically handicapped, blind, deaf, cerebral palsied, emotionally disturbed mentally retarded, elderly, socially disadvantaged, and the learning disabled.

Because this is a very new field at the present time, Willamette is one of three schools on the West Coast to have an accreditated music therapy program. The campus has the advantaged of being near many state agenices, institutions, and other community services which can benefit from services provided by music therapy students. Student training combines a four-year study of music with liberal arts course work emphasizing psychology and sociology. Besides the academic courses, the student undertakes a six-month clinical internship in a facility with an established music therapy program. Upon completion of this affiliation the intern is qualified to apply for registration with the National Association for Music Therapy. After the sophomore year a portion of each student's semester is spent in field settings with these various agencies.

In many ways Willamette's education program resembles other education programs, but one interesting and outstanding feature is the preparation for the professional semester. The entire education faculty works with prospective student teachers in theory and skills preparation which is applied during the same semester within the schools in the Salem area where students do their student teaching. The concepts provide a strong framework for a continuous evaluation of the effectiveness of the student teaching application and of the relationship of theory and skills to the actual student teaching experience.

There is a closely related dimension to learning in the academic disciplines which I want to touch upon briefly of which you may all be aware but which perhaps indicates something that an academician can learn about career education. This is a programmed approach to career education placement. I feel this is just as important to the teacher as subject matter is. In recent years career preparation of undergraduate students has received increasing priority in the mission of higher education, yet colleges and universities seldom analyze employment prospects for graduates in developing new programs and in revising existing curricula. Most academicians assume minimal responsibility for the career planning and placement aspects of their students in their four years on campus. From the viewpoint of the students and society, however, few functions could be as important. This paper is based on the assumption that career planning assistance is a fundamental responsibility of all faculty and administrators who advise students. Moreover, it is a basic element of the educational continium which begins when a student enters college and ends, in the immediate sense at least, with successful career placement following graduation.

Career planning and placement occurs through two prime linkages. One, close cooperation between the academic departments or programs and offices of career planning and placement in the process of career selection, identification of career opportunities and preparation for the employment search; and two, the systematic development of placement relationships with specific potential employers in the world of work. Methodologically, career planning and placement should be scientific undertaking with a philosophy and goals, systematic methods of research and analysis of the growing body of scholarly literature, and behavioral outcomes which can be precisely measured--the crudest being, perhaps the measurement of professional success. In essence, it is a sequential process in which the student determines personal and career goals, assesses the available career opportunities, develops an academic program designed to realize personal career goals and employment opportunities, prepares for the employment search, and executes the employment search. In other words, it is an attempt for the undergraduate student to integrate his total college experience by identifying and achieving personal and career goals.

One could identify four distinct stages which correspond to the undergraduate's advancement toward graduation. The first part of the process, which might occur at the freshman and sophomore levels, is the identification of compatible traits. In other words, some sort of self actualization which involves an attempt to recognize personal values, interests, abilities and skills. A beginning development of an awareness of the world of work involves an investigation of expectations and conditions and responsibilities of career employment, along with an investigation of the existing realm of careers, examination of existing career information literature, newspaper advertisements, professional journals.

The second part of the process we might call reality testing. This might occur in the sophomore and junior levels. Part of reality testing is the concept of interviewing an employer yourself--making actual contacts with potential employers to gain a first-hand knowledge of company or agency operations and conditions, developing a file of contacts, using summer jobs to gain work experience, writing letters to gain information and taking out student memberships in professional organizations.

The third part of the process might be the integration of academic programs and career planning. To be effective this certainly ought to have occurred by the junior year. During this cruical junior year a synthesis should occur involving determination of personal values and preferences, career selection and planning, finalization of academic major plans, and completion of supporting skills. There are several important decisions that a student might make during junior year: (1) the confirmation of objectives and specific academic career programs; (2) resolution of the role of parental influence in career selection; (3) development of second majors or additional areas of concentration to support the prime major; (4) change of majors; (5) transfer to another college for program or other reasons; (6) leave college temporarily or permanently; and finally (7) a very important decision for many students, a choice between graduate school and future employment following graduation.

The senior year is primarily involved in career placement. The process that might occur regarding career placement might also be utilized in selecting a graduate school or doing something else. Essentially, career activity in the senior year is for the development of a systematic approach to job hunting. This process includes a reaffirmation of earlier personal career decisions about employment or graduate school or review of "career opportunities" (personal contacts and personal career opportunities). This review could result in the reversal of a previous decision to pursue graduate school or employment and go to the other. The career placement process consists of the following major steps: (1) the articulation of career job objectives, (2) the consideration of career internship or practicum or other applied experience to gain work experience, and (3) the development of a placement file. Many career planning and placement offices, of course, have training workshops and seminars providing counseling for this purpose.

The changing needs of our dynamic society require that viable institutions continuously adapt their programs to enrollment opportunities and to the expectations of society. Institutions of commitment and integrity also insure that the adaptive process is consistent with the liberal learning mission and citizenship needs of a democratic society. Over the past several years Willamette has attempted to balance liberal learning and career planning objectives, and has developed several new programs. At Willamette, as well as many other colleges and universities, this program accommodation will increasingly occur within a steady state context in the future. Consequently, new programs will largely be developed through a pooling of existing staffing and resources and new kinds of discipline mixes.

Two potentially bright areas of program development at Willamette which reflect projections about needs in the 1980's and beyond appear to be the fields of communications and administrative science. Both would proceed from assumptions about the needs of a society likely experiencing increasing sophistication in technology and forms of social organizations. A communications major might be created through a cross disciplinary effort involving the speech, English, art, sociology, education, psychology and theater departments in cooperation with the campus media center, development office, and perhaps, Chemeketa Community College. Administrative science would respond to society's increasing management needs and would evolve basically from the university's political science and economics programs with considerable emphasis on public administration and accounting, and, to a lesser extent, psychology. An administrative science program at Willamette is an especially attractive opportunity to develop a 3-2 or other program relationship with the University's Graduate School of Administration. Whatever the shape of new programs a strong conviction exists that career preparation should be built upon the University's commitment to liberal learning, that the future will require well educated generalists who may experience several career changes in the course of a lifetime.

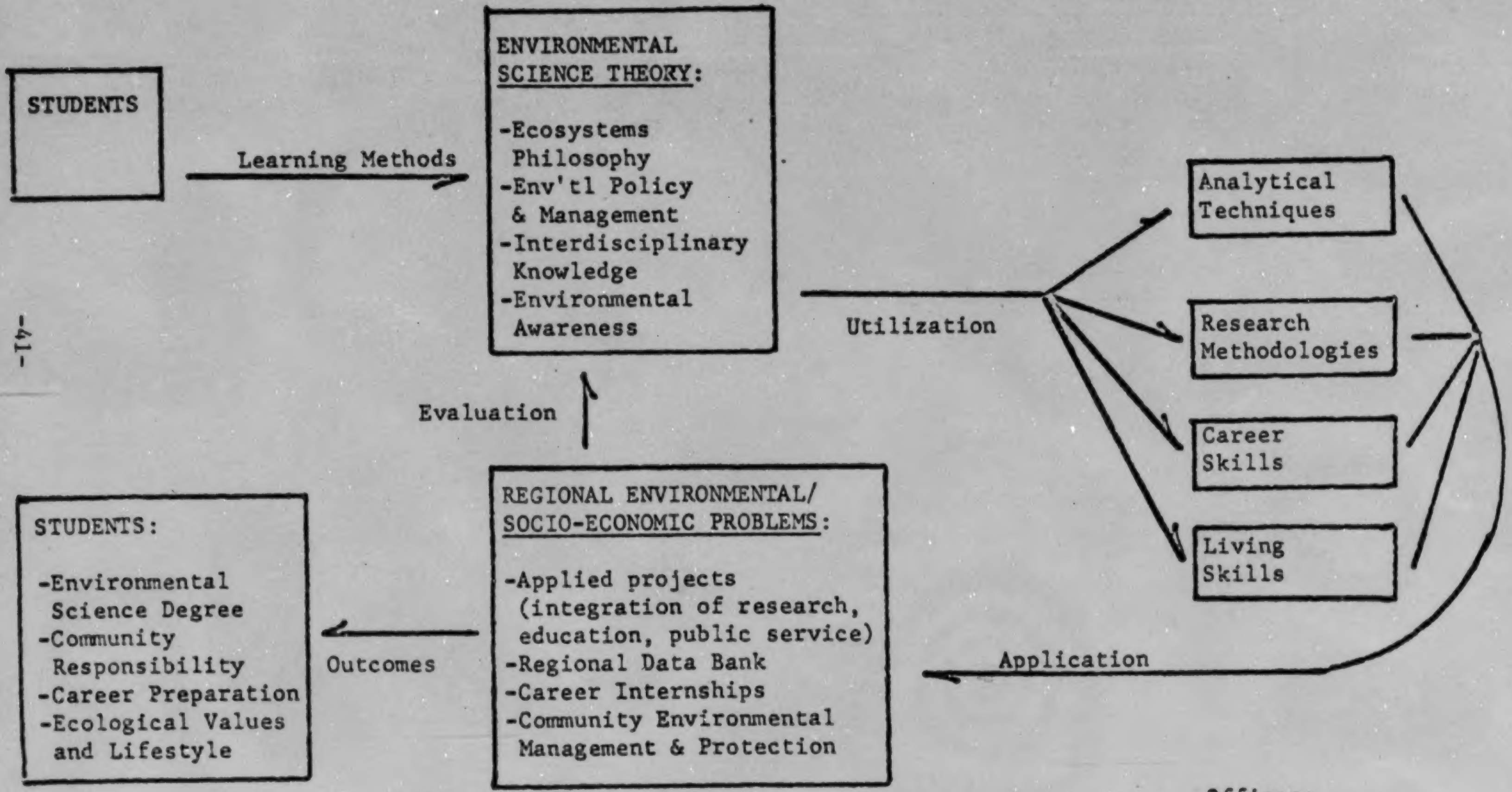
State University of New York - Plattsburgh
Plattsburgh, New York 12901

Programs:

-Bachelor of Arts in Environmental Science

-Man and Environment: A Living/Learning Semester at Miner Center

-Northern New York/Lake Champlain Research Gro


STUDENTS
Learning Methods
ENVIRONMENTAL SCIENCE THEORY:
-Ecosystems Philosophy
-Env'tl Policy & Management
-Interdisciplinary Knowledge
-Environmental Awareness
Utilization
Analytical Techniques
Research Methodologies
Career Skills
Living Skills
Application
Evaluation
REGIONAL ENVIRONMENTAL/ SOCIO-ECONOMIC PROBLEMS:
-Applied projects (integration of research, education, public service)
-Regional Data Bank
-Career Internships
-Community Environmental Management & Protection
Outcomes
STUDENTS:
-Environmental Science Degree
-Community Responsibility
-Career Preparation
-Ecological Values and Lifestyle

Offices:

Miner Center
Chazy, New York 12921
(518) 564-2178

133 Court Street
Plattsburgh, New York 12901
(518) 564-2027

RESEARCH PROSPECTIVE EMPLOYER

(POLICIES, PHILOSOPHY, SERVICE OR PRODUCT, OPPORTUNITIES)

PREPARE !

WEAR CLOTHES SIMILAR TO THOSE WORN BY THE PEOPLE WHO DO THE KIND OF WORK FOR WHICH YOU ARE APPLYING

MAINTAIN GOOD EYE CONTACT

APPROPRIATE APPEARANCE AND MANNER

BE ATTENTATIVE

OFFER A FIRM HANDSHAKE

WALK IN BRISKLY

ABILITY TO SELL YOURSELF

FOLLOW UP

DWELL ON THE POSITIVE SIDE OF PROBLEM QUESTIONS

EXPRESS DESIRE TO WORK

DEMONSTRATE ENTHUSIASM

ASK MEANINGFUL QUESTIONS WHEN INDICATED

EG. WHAT ELSE CAN YOU DO TO LEARN MORE ABOUT THE JOB?

WHAT ARE THE POSSIBILITIES FOR ADVANCEMENT?

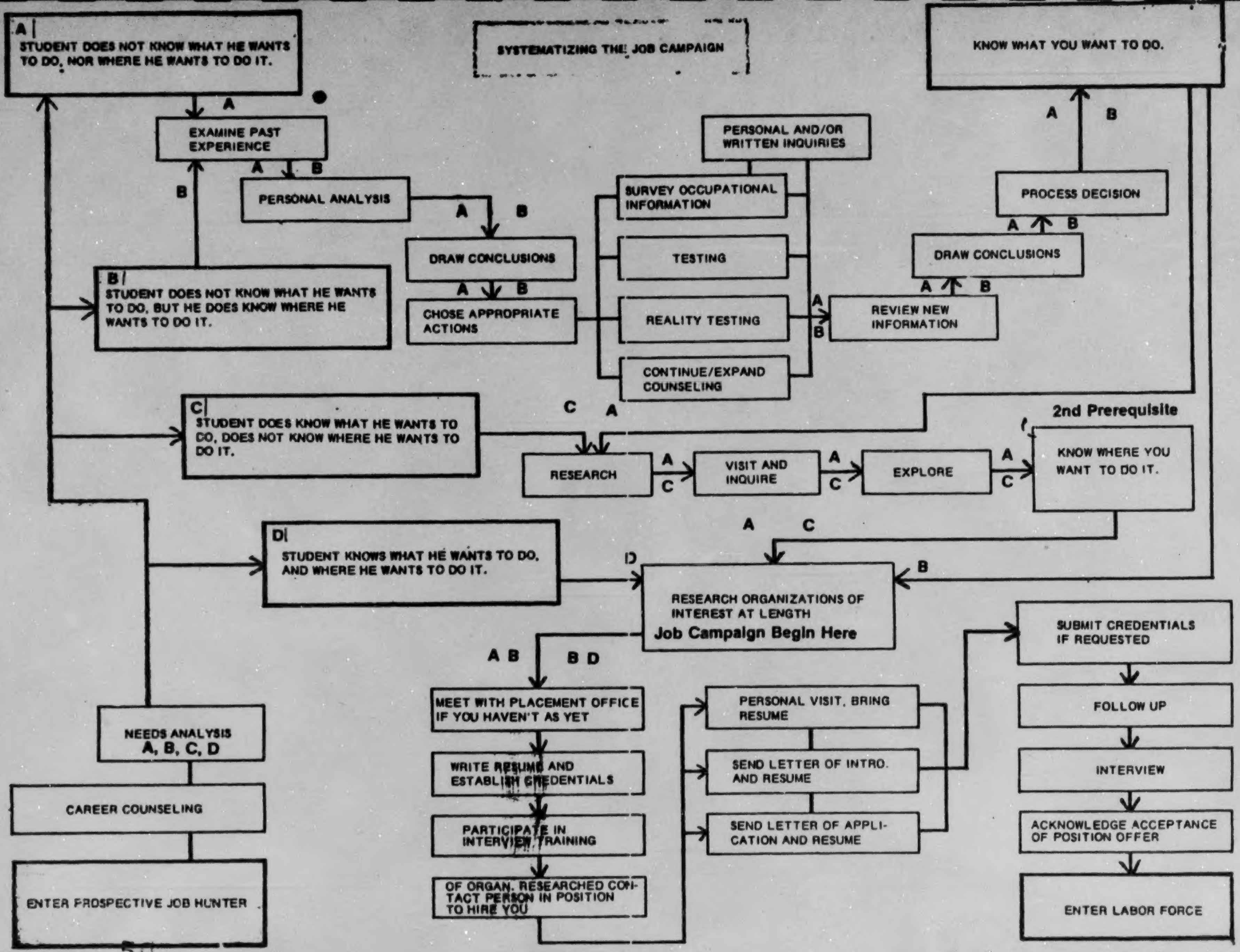
SELF ACTUALIZATION

EXPRESS YOURSELF

BE YOURSELF KNOW YOURSELF

ANALYZE YOUR STRENGTHS AND WEAKNESSES

BACKGROUND, ABILITIES, INTERESTS, VALUES, GOALS


SYSTEMATIZING THE JOB CAMPAIGN
A
STUDENT DOES NOT KNOW WHAT HE WANTS TO DO, NOR WHERE HE WANTS TO DO IT.
A
EXAMINE PAST EXPERIENCE
A
B
B
PERSONAL ANALYSIS
A
B
DRAW CONCLUSIONS
A
B
CHOSE APPROPRIATE ACTIONS
B
STUDENT DOES NOT KNOW WHAT HE WANTS TO DO, BUT HE DOES KNOW WHERE HE WANTS TO DO IT.
PERSONAL AND/OR WRITTEN INQUIRIES
SURVEY OCCUPATIONAL INFORMATION
TESTING
REALITY TESTING
CONTINUE/EXPAND COUNSELING
A
B
REVIEW NEW INFORMATION
A
B
DRAW CONCLUSIONS
A
B
PROCESS DECISION
A
B
KNOW WHAT YOU WANT TO DO.
C
STUDENT DOES KNOW WHAT HE WANTS TO DO, DOES NOT KNOW WHERE HE WANTS TO DO IT.
C
A
RESEARCH
A
C
VISIT AND INQUIRE
A
C
EXPLORE
A
C
2nd Prerequisite
KNOW WHERE YOU WANT TO DO IT.
A
C
D
STUDENT KNOWS WHAT HE WANTS TO DO, AND WHERE HE WANTS TO DO IT.
D
B
RESEARCH ORGANIZATIONS OF INTEREST AT LENGTH
Job Campaign Begin Here
A B
B D
MEET WITH PLACEMENT OFFICE IF YOU HAVEN'T AS YET
WRITE RESUME AND ESTABLISH CREDENTIALS
PARTICIPATE IN INTERVIEW TRAINING
OF ORGAN. RESEARCHED CONTACT PERSON IN POSITION TO HIRE YOU
PERSONAL VISIT, BRING RESUME
SEND LETTER OF INTRO. AND RESUME
SEND LETTER OF APPLICATION AND RESUME
SUBMIT CREDENTIALS IF REQUESTED
FOLLOW UP
INTERVIEW
ACKNOWLEDGE ACCEPTANCE OF POSITION OFFER
ENTER LABOR FORCE
NEEDS ANALYSIS
A, B, C, D
CAREER COUNSELING
ENTER PROSPECTIVE JOB HUNTER

TABULATION OF ENVIRONMENTAL SCIENCE CAREER EMPLOYMENT SURVEY*

Questions Asked	Total Respondents			Government Agency Respondents			Business Firm Respondents		
	Yes	No	% Yes	Yes	No	% Yes	Yes	No	%Yes
(1) Our organization would consider employing college graduates with majors in Environmental Science.	33	22	60.0	17	2	89.5	16	20	44.4
(2) We are interested in sending a representative to the SUNY-Plattsburgh campus to interview EnvSci graduates.	2	48	4.0	1	16	6.3	1	32	3.1
(3) We are enclosing information about career employment opportunities in EnvSci with our organization.	21	28	42.9	13	4	23.5	8	24	25.0
(4) We are enclosing our views about curriculum offerings which the Institute for Man and Environment might add or change to better prepare EnvSci graduates for employment in our organization.	17	31	35.4	8	8	50.0	9	23	39.1
(5) We are specifying areas in which we need more information about the EnvSci program to evaluate career employment opportunities in our organization.	2	43	4.4	0	17	0.0	2	26	7.7
(6) We wish to maintain contact about career employment with the Institute for Man and Environment and have placed the Institute on our mailing list to receive relevant information.	17	27	38.6	8	8	50.0	9	19	32.1
(7) We wish to be placed on the Institute for Man and Environment mailing list to receive materials related to career preparation of EnvSci graduates.	23	23	50.0	8	8	50.0	15	15	50.0
A. Questionnaires Mailed		275			60			215	
B. Undelivered Questionnaires		25			3			22	
C. Total Respondents		56			19			37	
D. % Returned of Delivered		22.4			33.3			19.2	

---

*Please note that some respondents did not answer all questions.

BIBLIOGRAPHY

Berberet, William G., "The Environmental Crisis and Environmental Careers in the 1970's" (unpublished paper, 1973).

Boesch, Mark, Careers in the Outdoors, New York: E. P. Dutton & Co., 1975.

Bolles, Richard N., What Color Is Your Parachute? A Practical Manual for Job-Hunters and Career Changers (Berkeley, Calif.: Ten Speed Press, 1972).

College Placement Council, Inc., College Placement Annual 1976, Bethlehem, Pennsylvania 18001.

Crystal, John and Bolles, Richard N., Where Do I Go From Here With My Life? (New York: Seabury Press, 1974).

Fanning, Odum, Opportunities in Environmental Careers, 2nd ed., Louisville, Ky.: Vocational Guidance Manuals, 1975.

Ferrin, Richard I. and Arbeiter, Solomon, Bridging the Gap: A Study of Education-to-Work Linkages, Princeton, N.J.: College Entrance Examination Board for the National Institute of Education, 1975.

Figler, Howard E., PATH: A Career Workbook for Liberal Arts Students (Cranston, R.I.: The Carroll Press, 1975).

Gough, Beverly E. (ed). World Environmental Directory, Silver Spring, Md.: Business Publishers, Inc., 1974.

Hopke, William E. (ed.), Encyclopedia of Careers and Vocational Guidance, Vol. II (Chicago, 1975).

National Wildlife Federation, Conservation Directory 1976, Washington, D.C. 20036

Occupational Outlook Handbook, 1974-1975 Edition, U.S. Department of Labor, Bureau of Labor Statistics, Government Printing Office.

Olympus Research Corp., Career Education in the Environment, Washington, D.C. U. S. Government Printing Office, undated.

Paulson, G. L., et.al., (eds.), Environment U. S. A., New York: R. R. Bowker Co., 1974.

U. S. Civil Service Commission, Federal Career Directory 1975, Washington, D. C., U. S. Government Printing Office.

Wilson, W.K., Dowd, M.D., and Sholtys, P. (eds), World Directory of Environmental Research Centers, New York: R. R. Bowker Co., 1974.

CAREER EDUCATION AND THE GENERAL SCHOOL ADMINISTRATOR

Grant Venn

April 20, 1977

Thank you very much for this opportunity to be with you this afternoon. I would like to share with you some of my past experiences, present prejudices and future hopes regarding career education and the general school administrator. Let me say first that when Goodlad talks about change in institutions, specifically in educational institutions, he says that change comes from two places. It can come from the person or the policy making group that is in charge but, generally, change is forced upon the institution from the outside. I agree that this is particularly true in education. I don't believe that teachers, curriculum directors or career education directors and those kinds of people have much to do with the quality of education. That is a terrible thing to say to this group, but I just wanted to get your attention.

I think what tends to happen in institutions where the person in charge is a lousy administrator and leader and there are good teachers, then those good people tend to leave. A good administrator and a good leader has purpose and direction and tends to develop his staff so they become good teachers and good administrators or he finds people who are good educators and those that aren't tend to leave. It is on that premise that I wish to base my remarks today.

I want to take just a few moments to build upon what Ed Herr said this morning on the conceptual bases of career education because I think that he is right. I want to go a little bit further, however, with some of the things that he said.

I will talk just a few minutes about the fundamental purpose of education in a society. One person said that a fundamental purpose is to prepare our young for adulthood. That may have been all right a hundred years ago but nowadays we probably should go one step further. It can best be put this way--a fundamental purpose of public education is to prepare a person for the future. That concept includes the kindergartner as well as the 65-year-old person in terms of change taking place. Toffler said in his book Learning for Tomorrow, "all education springs from some image of the future." If that image of the future held by society is grossly inaccurate, its education system will betray it. What really has happened in our culture, I think, is that education was structured, organized and designed in this country at a time when the image of the future was very clear. The image of the future was to be the same as yesterday. The adult role of tomorrow was to be like the adult role of today. Therefore, the great debate was structured around what was the right curriculum, the right schedule, the right organization and what was the absolutely perfect way to attain it. If tomorrow is going to be like today and as long as we have the right answers, the answers will be good forever. Our problem in education today, I think is that we found the right answers, but now the questions have all changed. So in one sense, the greatest problem that we face in public education is that we have been too successful. I do not think that there can be any disagreement across the United States that our system of education in this country has educated more people, has educated many of them longer and further, and done a better job with more success than any other education system in the world, and this by any measurement you want to measure it by--symphony orchestras, numbers of books read, vocational preparation or most anything else.

So the question, I think, that we have got to look at and what the present disagreement is about, is not the purpose of education, but is how does one prepare for the future? And I think, in essence, that the future as it relates to career education involves three things: the preparation of the individual for future private life, for future public life, and in our technological society, for future work life.

The thing that is new in this situation is the thing that Ed Herr mentioned and the question that was raised. Does technological change really require redefinition and reorganization of education? I come out with a belief of yes, it does require redefinition, reorganization and restructuring of education because the nature of work has changed. Some of you may not remember what it used to be. There is a saying developed in the South that describes it very well. "Work was made for mules and even they turn their ass to it." And as the folk saying goes, it is a fact that there is still some work like that in our culture, but, more and more, work is assuming a different role. Today work is not even an economic role for many. We had a presidential candidate four years ago who ran on a platform that would guarantee a family income. A guaranteed income certainly places work in a different role than a typical economic definition. To the change in the nature of work then must be added the preparation for work, and making decisions about careers, and developing the ability to adjust to different types of careers and changing work conditions. I think it really changes the structure and organization of our educational system.

Now having said that, let me just add one other thing. Education takes place in some institution. Some people from the outside say that we show institutional behavior! My point is that the structure and organization of any institution derives its form from its purposes and goals. The purposes of education a hundred years ago are essentially different from the public education purposes today. One of the purposes of education in the past was to be selective. In other words, you all know that half of you in this room are dumber than the other half. I don't care what you measure it's true. In other words, one of the purposes in American public education was to educate some people a long time and educate some people very little. And when we got the normal curve we could do it with a clear conscience. The nature of work in our society made it necessary to do this.

The other thing that we did in order to achieve that purpose, because that was the purpose of public education without being so stated, was to define and develop a rigged system. "Wiggity" said that we are going to go to school 90 days a year and everyone will go five hours a day, five classes 50 minutes each. Whoever learns up to this amount during that 50 minutes for that number of days will move on, and those who don't will move out. Some of the research shows that time is the single most rigged thing in our system of education and the organizational structure is so rigged that some people say that principals would rather have you mess with their wife than to mess with their schedule. (That's a joke.)

But I guess what I am saying is that the school year has a summer vacation because of the nature of the work in the past. It has a schedule built so that we could educate the young--some of them--when there was nothing better to do. There was a whole organizational structure that grew out of the purposes of education which provide certain people with the minimum basic skills and provide others, on a selected basis, with special skills so they could proceed on to the vocational schools called law, medicine, teaching and preaching. Essentially one of the purposes of public education was to select those who would go on to the vocational schools. That definition was built into the Smith-Hughes Act and gave a different concept to vocational education.

If we take a look now at the future, the only thing that we can be sure of is that our youngsters who are in schools today at any grade level and in any program will face a condition in the environment which we can not predict. One of the things that we can say today about the Technological Society is that we have reached a condition in our culture where, for the first time, we must educate everyone or it is likely that we will fail them. If you think this is not so, remember there is a federal law that says if you have five children, you are offered more public support than if you have one. In other words, education has truly become for everyone the link between the individual and his future. So that the future may be more in terms of education for coping, education for change, with no absolute answers. Without question those basic skills--the three r's which some people are now saying education is not supporting and to which we must return--do not include some of the basic skills that the future is going to call for. The future is going to call for some cooperative decision making, as with the energy crisis, for instance. It is going to call for some cooperative understanding. It is going to call for some decision making about one's individual private life, public life, and work life because they are all going to fit together in the future. What one does for work will probably be determined, to some extent, by his choice about private and public life. The ability to make decisions is going to have to be taught. We are going to have to teach, as a fundamental, the ability to be responsible, to care for someone else as well as take care of oneself. Many of these things which used to take place in the home and as a part of the community education of the individual, and which have now been replaced because of the technological change of work--these things are going to have to be added to the public education system.

Having said that, I now want to speak briefly about the role of the general school administrator. I don't believe that career education is going to continue to be viable unless it becomes part of the fundamental education of the young, or the fundamental education of the individual for the future. Many administrators are very unclear about career education. Generally I find in speaking to educators and educational groups, the superintendent opens the meeting and welcomes everybody and then calls upon the vocational educator to introduce me because I am speaking on career education. If he has a different concept of career education, then he calls upon the director of guidance or personnel.

There are some contradictions upon which new concepts and new programs grow. I ran across this the other day in a publication where you would not expect to find it--a Cabinet Department of Education's analysis and proposal for the American Council of Education written by Rufus E. Miles. He spells out what he calls the conditions for growth and success of public institutions relating to the organization's management. I want to read these to you because they seem to fit so clearly into the concept of career education and its development in our public education system.

1) Organization is an important expression of social values. In other words, you organize your institution so it expresses the social values and purposes and the value system priorities in the public sector. Surely some of our values have changed since education was founded in this country and the original schedule was put together. Surely some things have changed about our priorities in 150 years so the question arises, "Does the organization of education express clearly the important social values?"

2) Programs must be placed in a favorable environment if they are to be a success. Regardless of how successful career education may be, the question of its development and usefulness to a large degree depends on the environment in which it finds itself. I can guarantee, I think, that if you find yourself in an environment in which the principal doesn't want anything like that to happen, it isn't likely to happen. Now an outside force may get rid of the principal. In fact, the superintendent's tenure average is something like 3.4 years so there are outside forces at work but the programs must be placed in a favorable enrivonment.

3) Organization patterns may affect resource allocations. If funds are needed to develop career education, to provide the manpower, resources and other needs, the organizational structure has a great deal to do with whether that organization gets these resources.

4) Organization must be flexible to meet the emerging demands of the future. If youngsters need experimental learning to test and try out some of the theories and knowledge learned in the schools, is our organizational structure flexible enough to allow that to happen? Would the principal really let you mess with the schedule a little bit? One of the questions I hear most often when we talk about career education is, "That is really a great idea, now how are you going to fit it into the schedule?" I have yet to hear anybody ask the question, "That is a great idea, how are we going to change the schedule so we can do it?"

5) Purpose and goals must be clear. What is it you are trying to do? Career education is not vocational education. Can you explain it to the principal, superintendent, college president?

6) When purposes overlap a system of coordination must develop. Since career education is a concept and we are talking about infusing it into all the content areas and instructional areas in the system, how do we get this clearly understood in the organization, and get all the various people their assignments of responsibilities, etc. Reorganization and change cause threatening effects on those involved. I suppose the most difficult level of adjustment is at the university, then at the college level, then the high school level, the junior high school and elementary school. People tend to be frightened by this flexibility and reorganization that career education implementation brings, and I think that people in career education and the general administration must be prepared to deal with that.

7) Some of the basic principles, the structure and the organization and the benefits of change must be clearly seen--what are the pay-offs and benefits, and why is career education necessary in today's technological society.

With these conditions in mind, let me move briefly to what I think are the responsibilities of the general school administrator. I will go back again to my first remarks. The key person is the general school administrator. If that person does not understand career education, its goals and purposes, and the contributions that it can make to the education of the young for the future, career education is not likely to become a very significant part of that educational institution's instructional teaching program.

The first responsibility, since you are not adding a course or a department called career education, is to develop a policy for career education. What is the policy of the institution regarding career education as a component of education of all the individuals in that institution? You have a policy to provide for changes and additions to the main body of the courses. Taking a course out and putting a new one in will change the content, but when you are changing the purpose of education and its goals and the ways that you will educate all individuals, then you must have a policy statement. The general administrator has to take the lead in developing that policy statement. Most of us regardless of where we work tend to take the lead from those to whom we are responsible, or to put it another way, those who evaluate us and give us promotions. That is the person who has an effect upon the direction that things go and in the development of policy we tend to follow that person. You are a program person, a person interested in career education, in getting a first grade teacher and a high school teacher involved in career education, but the people whom you are trying to reach may listen a great deal more to the principal evaluating them or to the superintendent who hires them than they do to you regardless of the quality of your arguments.

Secondly, I think that the general administrator of the elementary school, high school, the college or university needs to develop a plan for a system that sets priorities, sets time frames and sets board goals for the eventual implementation of career education approach. This does not mean that you need to spell out at the very beginning how you are going to do all these things but rather you need a set of priorities and goals and time frames in which these things can be accomplished so that a climate is established in which you are moving towards an accomplishment rather than adding another thing to the system. I think that sometimes as innovations come along, like the idea of career education, the general reaction is, "Oh no, we are going to add another thing; already we have everything else from income tax forms to drug abuse to you name it."

Then last I would say that the responsibility of the school administrator is to develop for both the individual unit and the building unit, the unit plans that are consistent with policy in the overall system plan and then that can be brought right down to individual items so there is not an overlap or a conflict. I believe more and more from the opportunity I have had in working with some 140 school districts in Georgia helping them develop five-year plans in career education that this matter of setting priorities and the involvement of the chief administrator are the keys to making the educational program express the purpose of education.

Now I don't think you can sell the bill that we are going to change American education because we have sold American education too well. We are too successful. You can talk about how you are going to do this job or prepare for the future better in terms of the general education program.

Let me close then with just a few brief remarks about the implications of the preparation of school administrators, and I don't think that this is really very important because you don't get to be an administrator, you get to be an old person. The pecking order of things is such that by the time you get to be a superintendent you're too old to change. So maybe what we are talking about for institutions is the way you deal with these leadership people, and that is the key to why and how effective your program is going to be.

I just want to make a few suggestions. Leadership for career education has got to come from the general school administrator rather than from the specialist because career education's overall purpose is to educate our young. That puts it into a different perspective than a little simple program in a separate department. I think you have to understand it and sell it, and you have got to make sure that as you involve the community and move into placement transitions, that the community person knows what is going on and is well aware of it and gives leadership and policy direction as part of the total education purpose.

Next you have got to be able to explain the program to the leadership and the community that pays for and supports the schools. You have got to answer the question how does career education meet the basic purpose of education. Ed was talking some about that this morning, and our speaker following him also pointed out this need and that career education is not an add-on, it is supportive of the overall and the long range continued purposes of education. I think that you need to be able to speak about career education in those terms to the educational leadership and the administration.

How does career education complement the present programs taking place? I think that there are many ways. If I had to name a group among the different kinds of students we have in our schools that needs career education, I would say the group that needs it the most is the college bound group. I find more of them on the university level wandering around saying I wish someone could help me figure out what I want to be. In fact, a survey by American College Testing Service found that 79% say that is the biggest problem and 71% say the second biggest problem is solving the first problem. What I am saying is that there are a number of reasons relating to some basic principles that we spend $40,000 of public money for baccalaureate degrees. I gues what I am trying to say is that you have got to see, and not just in terms of your own progress, how your program helps to accomplish the goals of the general administrator. What are the payoffs of career education? How can it aid the individual student? That is really the skills and attitudes, hopes and abilities to contribute to society.

Lastly, how can career education help society answer these new questions and problems that are to be faced? How fast do you do it and how soon do you get it done? Well, I can give you a specific answer to that. How fast do you do it? You do it as fast as you can. I'll tell you that in your particular school district and institution it may depend more on the guy who has been president of that college for the past twenty years that it does on the quality and effectiveness of your program. It may depend more on who's on the school board. It may depend on what happened to the guy who tried to make all those changes and got fired. It may depend on where your staff is in terms of understanding it. It may depend on how prepared the community is. What I am saying is that all these factors, the environment in which education must take place (we have 18,000 different kinds because there are 18,000 school districts) makes a difference. So how do you do it? How fast do you do it? You do it as fast as you can, but that of course may be more related to the district and the people than to the program you have. Your goals and purposes are the same and the payoffs should be the same. What I'm saying is that educational specialists have got to be able to see the goal of career education as an overall fundamental thread of the educational system and be able to explain how career education is part of the total effort of education for the individual society. I don't believe that all the kinds of problems that we face in our culture due to our advanced application of science and technology can simply be solved by adding another little general corrective measure. We really have got to begin to look basically at the overall structural organization of this institution called education and how career education can make it more effective in the long run. That I hope will continue to be related strongly to the leadership, clarity of purpose, policy and direction given by the general administrator who often has not been involved.

Some Observations on the Status of Evaluations and of Evaluating Career Education

Lois-ellin Datta[1]
National Institute of Education

Four Objectives: During the next hour, I hope we can reach four objectives. The first is affirming the importance of the Oregon Inter-institutional Consortium. The second is summarizing data about the consequences of career education, information which may be helpful in discussion with both skeptics and believers. The third objective is soliciting your committment to solid evaluations of career education programs. And the fourth is suggesting approaches to infusing career education evaluation training into the pre-service and in-service projects for teachers, administrators and evaluators.

The Importance of the Oregon Inter-institutional Consortium: With the leadership of Representative Carl Perkins, who was ably assisted by the testimony of career educators, the House of Representatives passed H.R. 7, the career education bill, early in the 1977 session of Congress. It is not impossible that with continued lobbying, the Senate version introduced by Senator Hathaway, which did not make it out of Committee in the first 1977 session, will pass in the next legislative meetings. And it is not impossible, either, that both the House and Senate appropriations committees by school year 1979 or 1980 will provide funds to implement the career education act.

Should this legislation be enacted, it will present an opportunity and a challenge to institutions training educators. Much ground-breaking legislation has heard the trumpets of initial enthusiasm and the oboes of later disillusion, because the fine objectives of the legislation apparently were not attained. One of the reasons, though not the only one, for apparent slippage classically has been the failure to have sufficiently large numbers of people oriented philosophically to the innovation and trained to implement it before Federal funds flooded forth.

The Oregon consortium is among the national leaders in the pioneering groups in getting ready to implement career education on a large scale. The failures the Consortium inevitably may experience can be avoided by other institutions, and the Consortium's successes may be emulated if the experiences are carefully documented. And equally important, the work of the Consortium will--and already is--setting the essential, invaluable operational example of people who have dared to try out the risky, unusual before it becomes the taken-for-granted and wide-spread.

It might be helpful at the same time to point out that while the Consortium is among the pioneers, it is not entirely alone. As an example, the Fund for the Improvement of Post-Secondary Education (FIPSE) has funded some splendid demonstrations in three areas of relevance to career education in the post-secondary and higher education community. These are: (1) helping people to make the transition from home or the job back to education, and on through to new work; (2) helping people move from schooling to work; and (3) perhaps most related to the purposes of the Consortium, infusing the post-secondary schooling experience, transforming it, so that education and work can be more closely related. The report of these demonstration programs was presented at the April, 1977 American Association of Higher Education conference by Dr. Russell Edgerton, then Deputy Director of the Fund and now Executive Secretary of AAHE. It is perhaps significant that the theme of the AAHE conference this year was, "Education and Work; Implications for Higher Education."

---

[1] Presented to the April 21, 1977 session of the Inter-institutional Consortium for Career Education. Views expressed are those of the author; endorsement by the National Institute of Education should not be inferred.

And Five Points More: Turning now to the points I hope to document convincingly, there are five statements to which I hope to persuade you. These are:

(1) Testable assertions: That assertions regarding career education, which some people have said are untestable and too vaquely defined to be evaluated (Aclund, 1977) are stated testably. In reviewing what seem to be essential and testable assertions there are two species. The first type are bipolar assertions. These are statements where proponents of career education claim that some benefit will occur while opponents of career education claim that some harm will be done. These assertions seem to constitute the gut issues along which proponents and opponents align themselves, and which ought to be a focus of documentation. The second type are unipolar assertions. These are claims made by proponents of career education, which can be shown either to occur or not to occur as a result of career education. They are, by and large, claims which opponents are willing to grant career education as matters of implementation and to which they would not be opposed, if achieved.

(2) The score card: That the evidence regarding the bipolar debated assertions is sparse but the score card contains one assertion where evidence favors the opponents, two where evidence favors the proponents, and four assertions which can't be called on the basis of evidence. It is possible, however, to conclude (with one exception) that there is little or no evidence of harm (the concern of the opponents). The evidence of no harm may be sufficiently strong to challenge critics, to cite their evidence of actual, as contrasted to imaginary negative consequences. The proponents shouldn't always have to be on the defensive in response to demands for strong evidence of positive effects by critics who predict negative effects.

(3) And for the unipolar assertions: That the conclusions regarding the unipolar assertions are much as Ed Herr reported them to be yesterday, generally positive but possible over-pessimistic due to problems with the evaluation designs. To this are added three additional comments.

(4) Within the state of the art: That better evaluations are within the state of the art, if we apply what is already known about evaluating career education, there is no reason why there shouldn't be data giving stronger grounds for conclusions about the effects, with less of the foot-shuffling qualifications that mark a poor evaluation. The suggestions for infusing this know-how on the Consortium campuses are intended to be achievable--and such strong evaluation of career education is urgently needed.

(5) The status of support for career education evaluation:
That again, Oregon is not alone. There is national support for achieving better evaluations, as well as leadership in how to do this in outstanding LEAs, SEAs and research groups.

Why These Objectives: Before turning to the evidence on the first point, some explanation seems due for the choice of these objectives and assertions. There are three reasons:

- First, the seventh recommendation on program operations in Dr. Leo W. Myers' July 1976 "Final Evaluation Report for the Project on the Statewide Infusion of Career Education into the Preparation of Teachers, Counselors and Administrators" was, "Develop or identify and disseminate through consortium representatives a list of critical questions most often asked about career education to use in discussion with faculties and other publics to help keep debate and discussion open and orderly." (1976, p. 42)

- Second, acceptance of career education objectives in Oregon and elsewhere may be limited to the least innovative and most peripheral features, Dr. Myers' admonition may have referred to both the goals and procedures as seen by Oregon students and faculty. As of Spring 1976, the faculty in consortium institutions tended to agree with goals when these were stated in terms consistent with the broadest humanistic view of education (e.g., "self-understanding in relation to the future, p. 18) but to reject the utilitarian objectives and at least some of the structural changes seemingly required to achieve even the humanistic goals with which they agreed (p. 18, 19, 20). The Oregon situation is consistent with my concern that lacking evidence or a clear distinction between evidence and opinion, career education is going to be gutted by its opponents and compromised to death by its proponents. As examples, two aspects of career education which seem to be part of its reform potential (providing youth with a wide range of experiences outside the classroom including age desegregated experiences, and a sharing of both responsibility for and control of education with organized labor and with employers) have been eliminated from H.R. 7. It may not be legal, as it would have been in the earlier version of H.R. 7, to use Federal monies appropriated through H.R. 7 for unpaid career exploration experience, or to involve education and work councils in more than a de-fanged advisory capacity, as a result of unproven assertions in testimony on the bill that these would surely cause harm to students.

- Third is a concern for shifting expectations. What we select now as the outcome criteria for evaluation of career education will subtly but surely define the purposes of the innovation in the public mind. These purposes, and if possible, the criterion measures, should be explicit, to prevent expectation drift. Expectation drift may have diminished support for Project Head Start which was never intended to raise IQs but which was evaluated in this way and thus came to be judged by this standard. Reading the Congressional record with regard to H.R. 7 shows that every single representative--with one exception--of the many who rose to speak on behalf of career education, began with youth unemployment. Career education is becoming a solution to youth unemployment: how much of a dent in youth unemployment was career education intended to make? How much, realistically, can it make? (Bobrow, 1976).

Given below are a few citations for illustrative purposes from the Congressional Record (Volume 123, No. 60, April 5, 1977):

Dr. Sarasin I rise in support of the Elementary and Secondary Career Education Act... Millions of adult Americans are without jobs; your college graduates find themselves trained for positions in fields that are saturated with applicants: graduates of vocational and technical schools often find the fields for which they are trained obsolete; and high school graduates often have no knowledge of the jobs and careers that might be available to them...Many solutions to unemployment have been proposed..." (p. H3001)

TABLE 1; DEBATED ASSERTIONS ABOUT CAREER EDUCATION

Assertion	Opponents	Proponents
A. Consequences for the Social and Economic Order		
1. Which end, youth unemployment	1. Work structure and job creation	1. This, plus changes in youth's attitudes and preparation plus linkages
2. Collaboration among labor, management and educators	2. Not possible; only trivial changes will be made, concept will be gutted	2. Possible and necessary
3. Side effects on adult employment	3. Adult teachers and workers will lose their jobs	3. No loss of jobs for teachers and workers; in addition, better resource use for education
B. Consequences for Groups		
4. Tracking v. expansion	4. Minority and poor will be tracked away from college and into less atractive work	4. Through improved motivation, minorities and poor will have increased educational attainments and achievements; improve skills; widen their aspirations; less likely to dropout as unskilled labor
5. Work values	5. Socialize into accepting degrading and horrible work situation, as good schools are much better places to be and work situations are much worse and are dehumanizing	5. Workers need to have good attitudes toward productive labor while recognizing that some forms of work are not consistent with their own preferences and values

Assertion	Opponents	Proponents
c. Consequences for Individuals		
6. Basic skills	6. Basic skills will continue to decline as a result of career education taking away class time and attention	6. Basic skills will improve as a result of increased motivation and interest in what skills will help learners do; or, there will be no effects
7. Employability	7. Employability will be reduced to narrow training for very specific jobs or employability will not be improved since impossible to predict future work needs or education will be vocationalized and future employability will be lost.	7. Employability will be improved through (a) better job finding and holding skills, (b) better attitudes and affective preparation for work, (c) development of salable skills in addition to broader skills and (d) improved motivation for all course work and better learning of what is already being taught

Mr. Whitehurst: I am delighted to rise in support of H.R. 7...in large measure the impetus for career education programs has been the extremely high unemployment rate among young workers. Nineteen percent of our teenage population are now unemployed when more than a million jobs are going unfilled. This is largely because the new members of the labor force have not gained marketable skills in school..." (p.H3001)

Mr. Blouin: Throughout the country, far too many young people have been abandoned by the education process in recent years. These young people were never given meaningful exposure to the world of work. They were not adequately appraised (sic!) of the aptitudes, skills, talents and training which they need to find meaningful, productive jobs...In far too many cases, they end up as uemployment statistics--or worse yet, as crime statistics." (p.H3002)

The Congressional Record, both testimony and floor debate, shows that support for career education is expanding as people directly employed as career educators form a new constituency advocating increased funds. At the same time, criticism of career education is becoming more penetrating, although often without the critics being called to account for documenting their assertions beyond impressions. And expectations are beginning to drift. In this atmosphere, it may be helpful to try to compare the debated assertions with the evidence.

I. The Debated Assertions: Turning to the first point, Table 1 outlines assertions made about career education where proponents and opponents have made claims at opposing poles of belief regarding the consequences of career education. The assertions fall into three categories: assertions regarding the social and economic order, assertions regarding consequences for groups, and assertions regarding the consequences for individuals of implementing career education.

A. Consequences for social and economic order

- The first assertion in this category concerns which end of the relation between education and work should be grasped first in order to reduce youth unemployment, worker alienation and to increase opportunities for youth to contribute meaningfully to society. Both opponents and proponents of career education agree that meaningful participation in society is important. Both opponents and proponents believe that the problems of youth unemployment or the quality of working life are not susceptible to exclusively educational fixes. They disagree, however, on the value added of career education and whether working on the educational side of the street will be helpful or harmful.

Grubb and Lazarson (1976), Bowles and McGintis (1974) and Kemble (1977) assert that unemployment, worker alienation, disparities in the distribution of wealth and what they believe to be the deteriorating quality of working life are due to an unjust economic system. In their view, education is the wrong place to begin undoing these knotted wrongs. Both Grubb and Bowles argue that schools are already too successful in sorting youth to fit various social niches and in socializing them to accept their inevitable place in life. Career education, in their view, is little more than another attempt, similar in origin, philosophy, intent, nature and consequences to vocational education, to do an even more relentless job in sorting out and socializing youth. These opponents argue that the right end to grasp is changing the work structure, so work would not be demoralizing, unattractive and unjust. Also opponents say, the direct way to reduce unemployment is work creation, opening more opportunities for adequate employment; and the still better way, is thorough-going social and economic reform along socialist lines.

In contrast, Hoyt (1977) argues that to the extent that youth unemployment is due to lack of skills and proper work attitudes, career education can contribute to easing youth unemployment. He supports the present social and economic systems as basically right and just, though needing adaption and improvement, and urges improved socialization of youth to work within the present system, to help them achieve their individual goals.

> Grubb (1977): "...The time has come to improve the supply of jobs available and the nature of these jobs. Career education appears to me simply a way of making the expectations of students conform to a labor market which is characterized by high rates of unemployment and under-employment." (p. 9)

> Hoyt (1977): "To the extent that youth unemployment is caused by (a) lack of skills, (b) lack of self-understanding or understanding of educational and occupational opportunities, (c) lack of ability to change with the changes in the occupational society, or (d) a lack of desire to work, then what is needed is career education." (p. 3)

o A second assertion in this first category relates to the likelihood of collaboration. Collaboration (Hoyt, 1976); Walsh, 1976) means that parties are willing to act against their immediate constituencies' self-interests through development of an over-arching shared identity that transcends more paraochial views. Cooperation, by this definition, is finding those areas of overlap among the self-interests of groups with different goals; no one gives up anything. Both opponents and proponents agree that collaboration, rather than cooperation is needed to bring about the changes in both education and the workplace required to achieve career education goals. Critics and advocates differ, however, on whether collaboration will occur.

According to McGowan and Cohen (1976), the self-interests of educators, organized labor and management are so inherently opposed that any dream of collaboration among them is a fantasy about the social order. According to Wirtz (1977), such collaboration is necessary as a last, best hope of transcending the fragmented, warring interest groups who seem not to care about tomorrow as long as they get theirs today, and such collaboration is possible on the common ground of concern about the well-being of children and youth.

> McGowan and Cohen (1976): "So an innovative movement designed to produce structural change seems to have been changed by the structure. The implementation of career education has mostly produced programmatic parodies of the original ideas...One reason things turned out as they did is that the social division of labor simply overwhelmed the reform. Teachers would like to get difficult children out of their classroom but it seems risky at a time of enrollment decline and job shortages. Some businessmen like the idea of exposing students to the world of work and others like having students as employees or interns, but most business organizations are too concerned with productivity and profits to bother with more than a few visits or lectures. This belies the labor movements' worry that career education is a rate-busting, anti-union gimmick, but the worries have nonetheless helped limit serious work opportunities of adolescents. And all these forces are given added thrust by a sluggish economy and high unemployment rates." (p. 24)

o A third, related assertion deals with the side effects of career education. Again both proponents and opponents agree that the intent is for youth to be assisted without hurting the adult wage earner or overturning protective child labor laws where these are necessary. The opponents of career education assert that unpaid work experience is a rate-busting ploy that exploits youth and causes a loss of jobs for adults; that it is only possible in a full-employment economy. Teachers' unions and professional organizations of counselors fight efforts to use community resources outside the classroom as a substitute or replacement for in-school learning or to involve unpaid, uncertified individuals in a manner that could reduce the demand for classroom teachers or guidance counselors--arguments almost always couched in terms of potential harm to children due to lack of teaching and guidance competence among uncertified personnel (Kemble, 1977); Hansen, 1977). Opponents, the arguments continue, believe that career education will dump kids into a workplace that doesn't want them and isn't prepared to teach and counsel them; that it shifts the problems and responsibilities of school onto a workplace whose concern is profit, not education.

Proponents of career education assert that there will be no loss of jobs for adults as a result of career education and that hard-pressed school boards can benefit from a better use of community resources to help make ends meet.

B. Consequences for Groups

o With regard to the secondary category of assertions, consequences for groups, perhaps one of the most emotional issues is equity of achievement and aspirations. Proponents and opponents agree that women, minorities and children of the poor and the working class should be as encouraged as any other group, if not more so, to aspire to, prepare for, enter and progress in all occupations. Opponents of career education, however, believe that career education's blossoming at a time when underemployment is presumably widespread is not a coincidence. They fear that career education will discourage, either deliberately or in spite of itself, children of workers and minorities from entering colleges and the professions. In their view, one intention of career education is curing under-employment by either discouraging entry to higher education so fewer people receive advanced degrees or encouraging those who do enter not to expect that education will prepare them for employment. Proponents argue that exactly the opposite is intended and will happen: that career education will expand the aspirations and achievements of the children of workers and minorities, and will hasten sex-fair occupational attainment. Proponents claim things will be even better because children of workers and minorities will see the importance of getting skills so there will be fewer people at the lower end of the curve entering the job market unskilled and without a high school diploma. The issue thus is less whether there is harmful intent, and more what the evidence shows about the consequences of career education: is the higher end being shut off, or the lower end raised, or both?

> Kemble (1977) "We can't help note that career education has taken hold during a period when under-employment is disasterously high. Whatever the problems of credentialled degree holders in finding job placement that matches their qualifications, they are still in a better comparative position than those with less education...programs supported must expose students to a broad range of career possibilities, otherwise they will be subject to criticisms that they are tracking and have the effect of narrowing rather than broadening the educational and career aspirations of students." (p. 4)

> Hoyt (1977): "Career education seeks to help those persons contemplating college attendance develop a reasoned set or basis for doing so...to help students understand the declining economic advantage of college attendance and the multiple goals of education...career education is intended to have a non-tracking rather than a tracking effect. Minorities and those of limited income have much to gain and nothing to lose from implementation of comprehensive career education efforts" (p. 14/15)

o A second and related assertion in this second category has to do with work values. Proponents of career education believe that meaningful work is a psychological necessity of life and that good work habits, attitudes and values are essential for achieving meaningful work. Opponents say that the nature of the workplace needs to be changed, but not the attitudes students have about it.

> Grubb (1977): "Any decline in the work ethic in this country is not due to the failure of those institutions which transmit values to the next generation but instead to the fact that many jobs have become is unsatisfying...high rates of unemployment among young workers is due precisely to this reason...the jobs available to such workers are so boring and degrading that the young workers quit in disgust...the failure of career educators even to consider this alternative view of work and what it might mean for career education represents a real danger that the efforts of career education will be seriously misplaced." (p. 6-7)

> Hoyt (1977): "No matter how many times persons change jobs during their adult lives, the possession and utilization of good work habits will be important to them. These habits include (a) coming to school (or work) on time, (b) doing one's best, (c) completing assignments one is given, (d) cooperating with fellow workers, and (e) recognizing that almost all workers must take directions and orders from someone...We see work as a human need of all human beings--the need to do, to achieve, to accomplish--to know that the individual is worthwhile because he/she has been able to do something. Career education advocates have claimed that there are today many many more individuals looking for jobs than for work. We want to change this. We do want all individuals to want to work, and are committed to refocusing American education in ways that will accomplish this goal." (p. 5, p. 10)

C. Consequences for Individuals

o Turning to the third category of bipolar assertions, those dealing with outcome for individuals, there are at least two debated assertions. The first begins with agreement by proponents and opponents that basic skills (e.g., reading, writing, computation, communication) are essential for work. The opponents argue that it is not a coincidence that career education became popular when reading and mathematics achievement scores were declining and believe that career education takes away time from direct instruction in basic skills (Kemble, 1977, Anderson, 1976). Proponents claim that to the extent that poor reading and mathematics performance is due to lack of motivation, career education is just what's needed to improve basic skills.

> Kemble (1977): "Our gross data indicate a considerable decline in academic courses. Secondary pupils have been taking fewer courses in general English and mathematics... it seems more than simple coincidence that emphasis on career education as well as other non-traditional curricular areas is rising when achievement test scores are declining. Reports we are receiving from our members indicate that financial pressures on education programs are causing cut-backs in regular school programs while career education programs conducted in the workplace with little or no cost to the school system are being offered in their place." (p. 5-6)

> Hoyt (1977): "Other things being equal, pupil learning is increased when students think it is important to learn subject matter and when teachers thing it is important to teach. Too often, one or both of these conditions is missing in today's classroom. By emphasizing, where appropriate, that people use the subject matter in their work, career education serves as a vehicle for bringing a sense of purposefulness and meaningfulness to the teaching/learning process...Each of these efforts is designed to be helpful in improving student academic achievement. None is in any way counter-productive to the attainment of any of the basic goals of American education."

o With regard to the last debated assertion, proponents and opponents disagree on two aspects of preparation. To the opponents, schools should not be responsible for preparing youth (or anyone else) for employment, unless this is defined in the broadest sense of learning how to learn and the general goals of a liberal education. This position is based in part on the belief that it is impossible to predict what skills will be needed for employment even over the short term. Taking curricular time to teach specific occupational skills, in this view, loses time from teaching how to learn and to think, and the transmission of the cultural heritage. To career educators, providing every person who exits from any level of education with the general and specific skills needed for employment or for further education is central. It is argued that the general curriculum failed because it did not provide its graduates with the readiness for further education or for work. The goal of career education is to merge academic and vocational curricula, abolishing the general curriculum so that all graduates would be prepared for work or for further education. In the view of most opponents, only general learning ability is needed for most work today; in the view of the proponents, one needs general intellectual skills, good work habits, and some occupational skills, defined broadly enough (through clusters or through transferrable skills) that the person is not locked into a single job.

II. Evidence Regarding the Debated Assertions

Table 2 summarizes the evidence regarding these debated assertions. Relatively little is drawn from evaluations of career education programs because most evaluations of career education have addressed the unique or non-debated claims, e.g., whether or not the pre/post scores on the Career Planning subtest of the Career Development Inventory have increased at the .10 level of confidence. The studies have not generally addressed the consequences of such changes, which is what most of the debated assertions are about.

A. Consequences Related to the Social and Economic Order

o Youth unemployment: With regard to the first bipolar assertion, there are two lines of evidence favoring the opponents and two favoring the proponents, plus some agreement that the issue itself turns more on political philosophy regarding the democratic form of government and the capitalistic economic system.

Favoring the opponents, studies of vocational education generally have not shown favorable benefits/cost ratios. It would appear that Congress agrees with those who believe the best way to reduce youth unemployment is to get someone a job, hence the romance with CETA and the Department of Labor, and Congressional skepticism about what vocational education, however improved, can accomplish.

On the proponents' side, there is no evidence one way or the other linking career education in practice with reduction or increase in youth unemployment; reduction or increase in under-employment; or with changes in the nature of the workplace. To the extent that changes are happening, it seems likely that career edcuation is part of a general Zeitgeist that includes (a) examination of industrial democracy and (b) determination to increase the interpenetrability of work, leisure, and education. It appears also that career education curriculum materials and outcome measures are presenting a view of the economy conducive to adaption to, rather than criticism of, its basic premises (Johnson and Peterson, 1977).

TABLE 2: EVIDENCE REGARDING DEBATED ASSERTIONS ABOUT CAREER EDUCATION

Assertions	Evidence/opponents	Evidence/proponents
A. Institutional consequences		
1. Which end, youth unemployment	1. Job creation and work restructuring believed most effective	1. Except for "hard core" unemployed, no evidence that job creation and work restructuring would not be adequate
2. Collaboration	2. Anecdotal; some efforts already by interest groups to gut more radical aspects of concept. No evidence this is not possible	2. Widespread cooperation (if not collaboration) and increasing (though still uneven) support of labor as well as management. Some evidence this is possible
3. Side effects	3. No evidence of loss of work for teachers and adult workers as a result of career education	3. Some evidence of increased number and variety of jobs for teachers and guidance personnel; some evidence of positive job restructuring to include mentoring among adult workers
B. Consequences for groups		
4. Tracking	4. No evidence of decreased entry to higher education or decreased career aspirations as a consequence of career education	4. Some evidence of increased entry to higher education for minorities; no evidence of expansion or occupational aspirations for women or minorities. No evidence of any harm or loss

Assertions	Evidence/opponents	Evidence/proponents
5. Work Values	5. No evidence of socialization into acceptance of even horrible work as a good in itself; some evidence that curriculum materials pay no attention to unions and workers rights	5. Evidence that most curricula present the characteristics of different kinds of work and urge youth to think through their own needs and values in making choices; no evidence of pushing the Prostestant ethic in these curricula
C. Consequences for Individuals		
6. Basic skills	6. No evidence of loss of basic skills as a consequence of career education	6. Some evidence of gains in basic skills as a consequence of career education in a variety of sites and age groups; studies show either no loss or positive effects
7. Employability	7. No evidence of narrow vocational training or of reduced long-term employability	7. Evidence of attention to transferrable skills, long-term employability, and to helping youth weigh the benefits and limitations of various kinds of skill training. No hard evidence of any effects one way or the other on actual employment and employability.

Also, the nature of the question is becoming clearer. There are going to be a lot more older people soon than there has ever been in this country. Unless the older people may need to continue working at least part time for much longer than the 65 year mandatory retirement age permits, the pension funds will be drained or taxes for the younger workers will rise sharply. Also, there is going to be a bulge in the middle-aged population, with a 1980s crushing need for jobs for the teenagers of the late 60s and 70s who will be moving into a life style requiring better and more stable employment. The result probably will be a greater job squeeze for youth in the future than there is now.

The issue thus becomes more than getting kids jobs. It becomes also a broader question of accommodating youth, adults and the elderly in a stabilizing economy, and of how we feel about the relationships among leisure time, education as a consumption good, and about employment, particular flexible employment, part-time employment and different kinds of arrangements to substitute time for money without penalty to the kind or quality of work one can return to.

To claim that career edcuation by itself is going to cure youth employment because kids now know how to read and write or have a better attitude toward work does not make as much sense,as a way of framing the question, as it might have made ten years ago when the question and our sense of changes in the population structure and the rate of economic growth were simpler.

o Collaboration: With regard to the assertion about collaboration, the opponents have only anecodotes and expression of distrust of the motives of the other side as evidence. Kemble, for example, writes about the proposed education and work councils:

> "....We have been seriously concerned with the possibility that new structures for implementing career education programs may in fact allow for the privatization of the public school. Any look at the nature of business involvement in these programs can not help but raise the suspicion that what business might really want from career educcation is a public subsidy for its own training programs." (1977, p. 7)

The Hearings on the 1976 Career Education Act (H.R. 11030) and the 1977 Act (H.R. 7) suggest that those testifying supported what would increase jobs for the constituencies they represent to the exclusion of collaboration in the strong sense. For example, the American Federation of Teachers of the AFL/CIO supports expansion of career guidance and counseling through hiring more certified counselors. State directors of career education testify in support of funds to hire state directors of career education, and so on.

On the other side, proponents can point to instances in which education and work councils are already operating (Education and Work Councils Exchange Newsletter, National Manpower Institute, 1977). Labor and industry, according to the newsletter reports, increasingly are acting together on existing councils, with the leadership of Al Lorente of the United Auto Workers Union in Michigan as an outstanding example.

There is, however, no systematic examination of what is happening through the councils, and whether the achievements are cooperative, collaborative, or coercive. Nor is it known whether collaboration, once achieved, has the effects on renewal and reform that are among its chief attractions. The National Research Council/National

Academy of Sciences evaluation of the CETA councils may be illuminating in this regard, although these councils are appointed through a somewhat different governance structure than Wirtz has envisioned for education and work council models in "The Boundless Resources."

o Side Effects: Prominent among concerns for career education is loss of jobs for teachers if community resources are used for educational purposes, and loss of jobs for adult workers if youth are encouraged to explore careers through hands-on placements.

There is no evidence that either teachers or adult workers lose jobs when career education of this kind is implemented. If anything, the installation of career education is creating new jobs within the education profession such as career education coordinators at the state and local levels, learning site analysts, community resource coordinators, and more career counselors.

With regard to adult workers, there is no evidence that either employers or labor unions are regarding young people who wish some hands-on exploration as a source of free labor. There are reports from employers and workers that in many instances, mentoring is a form of job enrichment for the adult workers who enjoy having the young people with them. The pilot and field test Experience Based Career Education programs, for example, which are both large and wide-spread, have high rates of continuation among employers; surveys of the workers who mentor the students and site visits both indicate that teaching, rather than productive labor in the technical sense, is involved so the employers' enthusiasm is not attributable to more free labor.

It is true that evaluations of work-study programs operated by the U.S. Office of Education for training purposes indicated that between 1970 and 1972 (the evaluation period), some employers did rely on work-study students as sources of low-cost labor. One 1972 evaluation (Frankel) urged that placement be without pay since employers tended to regard salaried workers as productive labor, and young people who were in the workplace primarily as learners were offered much better learning opportunities if employers were not paying them. Frankel et al. suggest separating work-for-pay intended primarily as an income supplement for needy students and placement in employment intended primarily as a learning experience, if the purpose is to offer the young person a chance to learn about the business, trade, or industry.

Studies such as Frankel's seem to be extrapolated without data to career education placements, under the argument that since there are some similarities in purposes (learning about work), there must be identities in consequences and in potential abuses (e.g., Grubb, 1976). Comparison of the data from SDC 1972 and the Experience Based Career Education programs of 1977 suggest that either times have changed substantially in favor of using the hands-on experiences primarily for learning, or that extrapolation from work-study to career education is unjustified.

Other studies have investigated the compatability of career education with state and federal child labor laws. These reports indicate that both educators and employers (and labor unions) often do not know what the child labor laws permit, and fear activities which would not in fact be violations under the present laws. The studies also show that almost all proposed career exploration programs could be accommodated within existing child labor laws.

There have been no analyses of how much career education could actually assist schools in providing a quality education in a time of shrinking budgets. The claim is made that by maintaining present levels of school staff and using community resources, stduents would have improved learning experiences without expanding the school budget. Cost studies have shown that per pupil expenditures for career education are the same or somewhat higher than those for regular programs; none have shown savings. How a large scale secondary or post-secondary career education program, using community resources, could be more cost/effective than current approaches has not been worked out, even schematically.

Despite assertions, then, that unpaid career exploration will have negative effects on teachers and adult workers, there is no evidence that this has happened; there is some evidence showing, if anything, positive effects for job creation within the schools and greater worker satisfaction through mentoring the students.

B. Consequences for Groups

o Aspirations: There is some evidence of expansion of aspirations among minority, working class and low income youth associated with career education (Herr, 1977; Arterbury, 1977); findings are less sanguine without regard to older people. The evidence is, however, coupled with other studies showing no change in the percent of students who do and do not plan to continue their education or in the kinds of occupations for which they are preparing. Process data suggest that awareness of a range of occupations should be increasing. Reports of internship programs, for example, describe exposure of the young people to a range of career options in the executive, administrative and managerial levels that most probably would not have much opportunity to explore, as well as in the technical and skilled trades areas. One such approach, the Executive High School Internship Program has made it possible for inner city youth to explore and gain confidence in their abilities for top-level management work. The Career Intern Program, tested in an inner city, showed that black youth, especially the males, were much more like than true controls to enroll in post-secondary education (Langsdorf, 1977). The educational level completed and aspired to was higher in this study for the women career interns than for control women, but the occupational level was not different: for example, the women in both groups had high proportions of business and office occupations choices such as secretary, although the interns were more likely to know the difference among a secretary, a medical secretary and a legal secretary and aspire to the medical, legal and executive secretarial positions. The Experience Based Career Education evaluations showed no effects on career aspirations. Evaluations of the Mountain Plains program for multi-problem families showed few changes in the career aspirations of the women. The reason seemed to be that the husbands were opposed to wives working in higher status occupations, and the women chose training in office work or other traditional jobs rather than exacerbate family tension. How much change in such situations may come about through career education (to extrapolate from this one instance only) may need examination before claims are pressed too strongly.

On the other side, there is no evidence that career education is differentially reducing aspirations for working class and minority children. Apparently one statement out of many letters which AFT rank and file member sent to the national office is being used as the basis for claims that career education is exposing young people only to entry level jobs:

> "From Corpus Christi, Texas: Usually the work is menial in and unrelated to any particular field of study (i.e., students serve as waitresses, dime store clerks, busboys, etc.)" (Kemble, 1977)

From the context of the letter, the respondent may have confused work study programs funded under vocational education with career exploration programs supported through career education.

o Work Values: Turning to work values, there are some career education materials that present a world of work in which rewards are intrinsic and work, for its own sake, is a primary goal in life (Johnson and Peterson, 1977). Other materials, however, are presenting the picture more as Hoyt has described it, an opportunity to think through one's values, weighing the features of different occupations that are attractive or unatrractive relative to these values. The greater weakness of present materials, if there is one, as seen by Johnson and Peterson, is lack of attention to organized labor, both its assets and its liabilities.

Early evidence, much of which is soft, suggests that career education programs are associated with changes in attitudes towards work. The changes are group averages, and tend toward an increase in the belief that paid employment is desirable, can be intrinsically rewarding, and that individual merit influences success in paid employment--results consistent with the motto of the 1976 Commissioner's Conference in Career Education: "Rekindling Pride in Work." Interviews with students participating in career education programs, and with adults providing career guidance and counseling suggest that the changes in group averages are accompanied in individuals by the thoughtful weighing of alternatives Hoyt envisions, but these data have not been systematically presented.

As illustrations again referring to the study of the Career Intern Program, here are two young people talking about why they are interested in the occupations they are about to prepare for:

Denise: "As long as I could remember I always wanted to become in a courtroom somewhere, so that's why I said court-reporter first. My mind hasn't changed but two of my careers are in conflict and I can't make up my mind at this point. The probation officer would be like a counselor and I like helping people. The court reporter would be in court listening to everything: and you have to work under a great deal of stress and you have to really be together upstairs because if you are not, then I don't think the job is for you. With regard to prestige, I feel as though they are about the same, even though other people may not. For me, what's important is if I'm able to do the job and feel comfortable doing it, and if I'm able to do everything possible to bring out the best in myself and help others...."

Diane: "I've been interested in acting since I was in the sixth grade. It gives you a sense of power, getting up on the stage, and I'm interested in law because I'm interested in international politics...I'll make more money going into law than I'll make in acting, but I can do both. I'll get my law degree first then go on to acting 'cause then I can always have something to fall back on. Everybody wants a lawyer. I'm looking for personal satisfcation. It's hard not to make it as a lawyer, if you can pass the bar. And I am going into international law, which is practical and something to fall back on. Or I could work as a court clerk. Court clerks take notes for a trial, carry around top-secret messages and such."

Denise, the first student, is about halfway through the Career Intern Program. Diane is a student at a school in the same district (Langsdorf et al., 1977). Such data are difficult to quantify but may even as instances not selected at random give a sense of the quality of thinking about work associated with some career education programs.

C. Consequences for Individuals

o Basic skills: With regard to the consequences of career education for individuals, the opponents who fear that participating in career education will mean a loss of basic skills apparently do not have any studies (always a bold claim) showing that career education participants do worse than non-participants.

There are quite a few studies showing no differences of note between participating and non-participating students, some soft studies suggesting participants may gain more in basic skills and also a few well-controlled studies showing gains in basic skills associated with career education participation (Bhaerman, 1977). The studies with the clearest evidence seem to be those where an emphasis on basic skills is comined with career education. The Arizona reports of improvement in basic skills suggests that the intensive inservice training on how to teach reading with infused career education probably had as much information on how to teach reading as on how to teach career education. A controlled study in which an intensive reading program, an intensive career education approach without special inservice training on teaching reading, and one combining both (as the programs showing effects of career education on basic skills seem to do) would help disentangle the consequences of intensive inservice training in teaching reading from the multiplier effects of career education.

Again, based on observation and anecdotes, it seems likely that career education is carrying some multiplier effect beyond the inservice attention to teaching reading, but this can not be proved one way or the other with present data.

At present on this debated point, the weight of evidence seems swinging in favor of the proponents of career education. Those who claim career education is hurting development of basic skills probably should be challenged to cite direct evidence of substantial, harmful effects and to explain the accumulating evidence of either no different or no benefits.

o Employability: With regard to preparation for work or employability, there is no evidence that career education is associated with forcing youngsters into premature choices or training for narrow, dead-end jobs. Nor, on the other hand, is there evidence that career education has improved the employability of youth. There are some reports of new processes or of institutional changes such as expansion of placement programs both in school and out, that might improve youth employment. There are also many proposals for an educational component of the subsidized employment programs for out-of-school youth so the young people will be better prepared to move into the regular labor market after the subsidies run out. Both of these may be associated with the concern for youth in transition on which career education has helped focus discussion and attention.

Some to the experiential learning programs also may increase the employability of youth because employers do not have to invest their own money in socializing youth to their work settings. In one project, almost all youth who had internships received job offers, even though the internships were planned and monitored not to include productive work or to substitute for adult workers in any way. The employers explained that the six weeks exploration was long enough to orient the students to what it felt like to work in the situation, to give them a sense of what the workers did and the interpersonal relations, so they were able later to learn specific skills quickly and were more likely to know what they were getting into, to see opportunities within the organization and to stay.

Also there is much interest in finding out what schools should teach to prepare students for occupational mobility and transfer of skills. Most Americans already change occupations 4.5 times during their working life, and this is projected to increase. As research on preparation for occupational mobility begins to influence curricula and counseling, it is possible that career education may more demonstrably influence career preparation. The question requires longer-term studies in any event, and it may not be until such studies have been conducted, following students who have completed comprehensive career education programs, that conclusions could be reached one way or the other regarding career preparation.

Summarizing so far: the score card from evaluations show one for the opponents (the assertion regarding the impact on unemployment and under-employment per se), one reasonably clear decision for the proponents (the assertion regarding basic skills), one maybe for the proponents (the assertion regarding work values) and three with inconclusive evidence (the assertions regarding collaboration, preparation, and equity of aspirations).

Summarizing in another way a stronger statement is possible. With the exception of the assertion regarding impact on socio-political problems, there is little or no evidence from studies of career education program outcomes that is consistent with the critics of career education. This seems to be a not insignificant finding, since during the early period of an innovation, it wouldn't be too surprising to find that some approaches were not well implemented, and poorly implemented programs could be as harmful as opponents have feared. Maybe this indicates the sensitivity of the outcome measures, maybe it reflects the robustness and elasticity of the students, but there is a certain re-assurance in looking for negative findings, and finding few or none.

II. Specific Claims

In addition to these debated assertions, career educator have made specific claims which are not debated. For example, career educators hope to improve the occupational knowledge a young person has about the nature of different kinds of work and the preparation required for it; career educators also claim improvement in ability to assess one's own interests, skills, values and attitudes (self-knowledge) and to weigh self-knowledge and knowledge of work through improved decision-making and planning skills. Opponents of career education agree that these are desirable skills for young people to have.

The literature on specific claims (and some of the debated assertions, such as basic skills) has been recently and thoroughly reviewed. The testimony given by Arterbury (1977), the presentation by High at the Commissioner's Conference on Career Education (1976), the papers commissioned by the National Advisory Council on Career Education (listed in the references), the articles in the evaluation issues of the Journal of Career Education give a good overview of what is claimed, and what the evidence shows. Herr's presentation at this Conference is the most recent and perhaps the most profound analyses of the evidence.

In reviewing these reports, it seems useful to emphasize the main findings and suggest three additional concerns.

Herr (1977) concludes that (1) none of the studies show losses associated with career education on any of the outcome measures, itself a positive effect during the early stages of an innovation; (2) there are some notable gains reported in all areas of career development although these are sporadic, appearing for some studies but not others; (3) it is not yet clear what accounts for the lack of consistency in effects across evaluations, although there are plausible hunches such as difference in measures, use of inappropriate measures not sufficiently keyed to the program, and differences in sensitivity of the evaluation designs; and (4) because the evaluation designs are open to rival hypotheses which can not be ruled out, conclusions about the effectiveness of career education may be more pessimistic than the program effects merit. Herr argues that if we obtain so many positive results, albeit sporadic, in spite of considerable limitations in the research designs, the power of the career education programs must be quite substantial, since evaluation deficiencies usually act to decrease the power of the study to detect differences which really exist.

To Herr's conlcusions might be added three points:

(1) Implementations: Perhaps the most important findings are those of the Pima County evaluations. These well-designed studies compared the effects of unique outcomes (occupational knowledge, career planning skills, career decision-making, etc.) for students whose teachers implemented the program and students who received a lower intensity of career education. The findings indicate that career education works when it has been tried. The study suggests that one should look for effects where career education has been well implemented and the youngsters have had fairly extensive exposure. Without knowing degree of implementation, interpretation of the on/off findings of the accumulated body of evaluation reports will be difficult to interpret.

(2) Specificity of Effect: Evaluations in other educational areas such as reading and compensatory education indicate that output is closely related to input. Time is spent on teaching reading, for example, is the best predictor of reading gains. The Follow Through longitudinal studies are pointing to a specificity of effect: differential benefits are greatest in curriculum areas which the educational model most emphasizes. If the focus is teaching a youngster spelling and most of the time is spent teaching spellings, there is every reason to expect that youngster to spell better. But if that student is tested on abstract reasoning, don't expect a magic transfer of effect unless some time has also been spent showing the student how what has been learned in spelling is related to abstract reasoning. If all the time is spent teaching children how to conceptualize, by all means see if they can reason better and solve problems, but their spelling may not improve. Elsewhere, Boruch (1977) has been shown the great loss of power associated with measures that are not highly relevant to the educational intervention. In the career education literature, this is strikingly demonstrated by Brickell (1976) who found that the effects of a career education program in Ohio which evaluators could see from classroom observations was well implemented and working could not be shown psychometrically until the tests were revised to match closely what was being taught in the classroom.

(3) Initial and final levels; magnitude of impact: Analyses of educational evaluations in other areas show that the statistical reliability of differences are themselves unreliable indicators of program effects. Analyses examining whether there is room to grow at pre-test on outcome measures (as well as floor effects in which students begin with so few skills even a large improvement would be below registering on the test); whether the gain is educationally meaningful in magnitude; and whether the final levels attained suggest effective functioning increase the sensitivity of evaluations to what has happened for learners (Boruch, 1977; Datta, 1977). The classic remedy for improving significance of differences has been increasing Ns and increasing measure reliability; to these evaluators are adding greater attention to management (e.g., implementation) and non-statistical determinants of what can be learned from evaluations. There has been an infatuation with the .01 or .05 level which obscures knowledge of what is happening. It isn's important for most educational purposes whether p is .01 or .05. Do the learners accomplish: Have they learned enough to do something worthwhile? Are the final levels high enough to give assurance that the learners have been helped? Is the magnitude of the gain big enough to be worth the effort it took to accomplish it? Evaluation reports all too often list p levels and do not tell whether the final levels were high enough to make a difference in anyone's life, and if the magnitude of the gains were big enough to be worth the time and trouble required to achieve the effects.

Some few career education evaluations have reported the means and standard deviations of pre and post scores and systematically discussed whether the initial and final levels indicate effective or ineffective functioning in absolute terms. The evaluation of the Career Intern Program (Langsdorf et al., 1977) provides a worked-out example of how to analyze data in this more differentiated manner. Among the findings were that the career education had a statistically reliable effect on reading and mathematics achievement but the scores were still lower than needed for skilled work or post-secondary success; that the program had both statistically and educationally meaningful effects on career information, planning and decision making; and that on measures of self-esteem, both interns and controls began with a positive self-image and stayed that way over the course of the study.

IV. Infusing career education evaluation into training the general administrators, the teachers and the evaluators

The conference has focused on how to train the general administrator and the teacher to implement career education. The topics of philosophy and practice already presented are indeed essential if the innovation is to move from dream to reality.

Equally important is the need to fuse a committment to rigorous evaluation and the know-how to achieve such evaluation into the preparation of general administrators, teachers, and those now being trained as "general" evaluators.

This section considers two aspects of this infusion: what to infuse and some ideas on how to do it.

A. In an "ideal course" on evaluating career education, the following points-and the following resources to use as texts or reading-might be considered.

(1) Philosophy: The need for rigorous evaluation is not wholly accepted. The large number of warm puppy studies, long on how enthusiastic students and teachers

were about the program, and short on interpretable data on consequences, is mute but compelling testimony to lack of committment to rigorous studies. Among the readings which might provide both a sense of the need for rigorous evaluations and the consequences of staying with the warm puppies are (a) the Joint Dissemination Review Panel Guidelines, (b) the reports by Talmadge (1975) on evaluating reading achievement, (c) the reviews of the literature on career education by Arterbury (1976) and by Herr (1977), and (d) Hoyt's excellent speeches on career education evaluation (1976; 1977)

(2) The Value of Randomized Designs: One component--but not the only component--of an interpretable evaluation is a true randomized design. The need for such designs, and how to achieve them have been described by Reicken (1975), by Gordon, Mosteller and Tukey (1976) and by Boruch and Campbell (1976). Examples of true experimental designs in career education are presented in both Arterbury (1976) and Herr (1977).

(3) Independent assessment of implementation: The Behavioral Research Associates Pimas County, Arizona evaluation referred to earlier is an illustration of both the need for independent assessment of implementation and how to do it in a career education setting. Datta (1976) also provides some suggestions for ways to use implementation data in improving the sensitivity of the study to true program effects. The publications of the U.S. Office of Education on career education offer checklists and guidelines on the components of a well-implemented and comprehensive career education program. Adapting these to local and state needs should be a relatively simple step from program specification, training and monitoring materials. Such scales can be used to collect objective data on program implementation and, if possible, on amount of exposure for each learner. The biggest single variable accounting for disparities among evaluations of career education that will make cumulating findings difficult, may be variation in what was meant by career education (the program) and how well implemented the program was. Again, the rating scales or descriptions will need to have a priori judgments made, minimum standards below which the trainer or installer believe the program was not implemented. Otherwise the reader is left helpless, with a "2.5 implementation average", not knowing if this is minimum, well above minimum, or a very pearl among programs.

(4) Setting a priori standards of what would be a worthwhile effect: Avoiding descriptive data which are interesting but uninterpretable and collecting data which have some value or judgment attached to the magnitude and direction of changes can get more mileage from scarce evaluation dollars. For example, reporting the college majors of graduates of career education programs is useless for most evaluation pruposes. If, however, the program is intended to affect choice of major in ways predicted ahead of time, this can make sense. Career education, for example, may encourage women and minorities to complete the required courses in high school needed to enroll in mathematics, engineering and physics in college. If a program is willing to call such increased rates of entry, success, and no change in rates of entry or decreased rates, failure, a priori, this may be an appropriate and sensitive criterion of effectiveness.

Another instance comes from a true and cautionary tale.

"Once upon a time there were three evaluators and they were all trying to assess the impact of programs intended to improve the career decision making skills and career maturity of high school students. All three evaluators were studying pretty much the same intervention, adapted somewhat for different sites. All three used the same outcome measures.

One evaluator found that the students were more certain of what they wanted to become, where they were going, and how they were going to get there than they were before. The evaluator proclaimed the program was a success.

The next program evaluator found no difference on these measures between participants and non-participants and concluded, "Our program is a success because the students did well on other measures and this area is not important."

The third evaluator found that the control groups were more certain of what they wanted to become, where they were going, and how they were going to get there. The evaluator concluded "Our program is a success because the students have not been pushed into premature career decisions and control students were harmed, because they were not in the kind of program which would have increased their uncertainity."

Any one of these three outcomes could be a fine, and defensible position with regard to what is a favorable outcome for students. The argument is not which one is desirable. The point is rather (a) the need to decide before one sees the data on standards for success and (b) the importance of setting standards for minimal levels attained, for final desirable levels, and for the magnitude and direction of the differences, anticipating what the outcomes should be.

As a general rule, those who can not state ahead of time what they would regard as a failure, have not said in a credible way what is success.

(5) Magnitude of Effects: Magnitude of effects merits as much attention as statistical reliability. Statistical reliability is little more than an estimate of how likely it is that an effect of the size observed would re-occur, that the true difference falls with a given range in the population. The value approaches certainty as the sample size approximates the size of the population: the statistical tests are susceptible to increasing sample size and increasing the reliability of the measures, even if the power at a treatment is rather small.

If it takes six years and $15,000 per child to get a 1 point increase in a career maturity inventory score, this is probably not worth the effort, however reliable statistically an increase of this magnitude might be. Reporting pre scores, post scores and cumulating judgments about how large a difference and what final levels are meaningful would strengthen how much is learned from evaluations.

(6) Rival hypotheses: One weakness in career education evaluations is that there are so many other explanations for the pre to post-gain. Over and over, it is reported that "the prescore was 10, the postscore was 20 and the difference was statistically reliable at the .01 level so the program works and we need $100,000 to replicate it." One alternate explanation is practice on the test. Another is that the tests are given by teachers who have designed and taught the course. If the teachers know the students and the students know the teachers, they may be willing to work harder on the test for each other. It could be that something else was happening in the community that would account for the changes.

As an example, one evaluation is trying to assess a program that claims to provide better use of counseling resources. It will be difficult to attribute causation to almost any outcome measures because in this community the Department of Labor has installed a national occupational information system program, there is new vocational education legislation in expanding support for career counseling and guidance, and the school system is the site of three new career education programs in addition to the career counseling system.

One can anticipate rival interpretations of the findings a priori, and collect the data needed to rule them out, if a rival interpretation is differential attrition (that htose least likely to benefit dropped out), compare the initial achievement of those who stayed and those who left. If the rival hypothesis is practice on the test, arrange for a comparable group of learners to take the same test at the same interval to see what the practice effect is. If the rival hypothesis is that the control group wasn't trying as hard (an hypothesis we actually encountered in our studying of reading achievement) get an estimate of the effects of not trying so hard, such as scores with and without a correction for guessing, to see if the effect still occurs when there is a correction for guessing. Before collecting data, think about the final report as the most skeptical person would. Identify all the chinks in the argument and evidence, and try to collect data ahead of time to address these alternative interpretations.

(7) Measures: Among the most important determinants of the sensitivity of an evaluation is the relevance of measures chosen to the program itself and the intended outcomes. There are now several thorough sources of information on career education outcome measures: the National Assessment of Educational Progress's studies of career development and occupational preparation are an excellent source of items; the three reviews of the literatiure cited (Artherbury, High, Herr); the article by Brickell on the Ohio State evaluation of career education; the extensive work of Brickell and Allanian on evaluating the outcomes of career education; and the three measurement handbooks in career education (Macaslin, in press).

One limitation of these handbooks is that no information is given on the sensitivity of the measures. Sensitivity refers to the likelihood that the measure will change if the program is effective. Some measures are almost impervious to changes, having been designed to be almost stubbornly reliable for individual diagnosis. Other measures while repeatedly used have never picked up program effects. It is sound research to review the literature to see what outcome measures have been sensitive in the past to programs that should have veen effective, and to select among the measures which are conceptually appropriate, those which prior experience has also shown to be sensitive.

As an example, think ahead. If results were obtained on a measure that were the opposite of the expectations, would the evaluator say the program has failed, or would the evaluator go into an exegesis as to why the measures were lousy? If the evaluator would critique the measures, rather than conclude the program was ineffective, don't use the measures. Look at the content of the items and how they are scored: does the scoring make sense? Do the item scores reflect the purposes and objectives of the program?

In one evaluation using a career values scale, an in-house evaluator found no differences between the participants and control students, then damned the measure on the basis of the items. One of the items was, "Most rewards for work should be intrinsic: ture or false?" The answer is true. The evaluator wrote, "We didn't believe the outcome measure. We think it is important for youngsters to know there are sometimes extrinsic reasons for working well as well as intrinsic reasons for working, and that's what we are trying to get them to understand." This might be a splendid purpose, but why did the evaluator use this test since information of how the items were scored was in the test manual before the data were collated? Look at the items and how they are scored, not only the title of the scales.

As another example, one of the outcomes educators get concerned about is the sense of control: do people feel as if they control their own destinies or do they feel as if they are the pawns of luck or fate? There is an internality/externality scale that is quite widely used. There are few instances where it has been sensitive to programs that should have had a large effect on the sense of control. Why use this measure still again?

The use of inobtrusive measures may be particularly adapted to career education. If career education helps teachers feel efficacious, what is their sick leave rate? If career education makes schooling exciting, what about absences, tardiness, and late work? A sensitive indicator of collaboration is who participated: the president of the company? the personnel officer? the line manager? the company's PR representative or the company flak? Use of such measures plus individual case studies and observational data can multiply the interpretability of an evaluation. As long as the data are collected objectively, these measures are legitimate as a paper and pencil test; if the paper and pencil test data don't agree with the weight of evidence from cumulative records, case histories and unobtrusive measures, there is no particular legitimacy of one over the other.

In one career education evaluation, academic self-esteem increased equally for experimental and control students. Through case studies and interviews, it seemed that the career education students were more confident of their academic skills and had increased in their self-confidence as students. The control students had dropped out; after they dropped out, they were not daily reminded of their academic problems and their self-esteem on the paper-and-pencil test rose. The career education students did not drop out. Their test scores increased because they were getting daily reinforcement of their improved skills. Did the program fail because there were no differential gains? Probably not--but it took going beyond the test scores themselves to understand what was happening.

(8) Costs: One bottom line educationally is "what does it cost". Collect hard data on the resources needed to implement a program and the cost over and above reasonable alternatives. A program that costs $2,000 over and above the regular ADA student cost probably is not feasible, even if it works wonders. A program with modest but reliable effects which cost $50 over and above ADA expenditures may seem a more attractive alternative.

B. How

At least five approaches to infusing career education evaluation in training for general administrators, teachers, and other personnel might be feasible on your campuses.

--a special workshop on evaluating career education might be conducted. A 1½

90

to 2 day workshop should be adequate to present philosophy, design, measurement and analysis issues assuming that the audience is familiar with evaluation to begin with and needs only an updating in special career education issues and context.

-- materials on evaluating career education could be infused in regular courses in educational research and evaluation, through use of a case book on evaluations of career education, illustrations taken from evaluations, or even a special action in an evaluation course on career education evaluation

-- a case book on evaluating career education could be prepared, perhaps as a student project and perhaps as a consortium activity intended for use throughout the state, in much the same way career education installation manuals have been prepared. The case book could be based on such exemplary studies as the Brickell/Ohio report, the Pimas County evaluations and exemplary instances from Oregon

-- special evaluation projects for advanced work in career education could include critiquing evaluations and working with actual data in preparing reports and analyses. Evaluation of the inservice training could itself be a student project particularly since staff are so much the key to career education implementation.

-- career education evaluation could be infused in regular education courses. An example given this morning was to assess the reading level of career education curricula in a course on reading methods.

The opportunities to infuse both a concern for career education evaluation and some "know-how" are probably numerous on all campuses. The five suggestions are only starters, and it would be exciting indeed if a year from now, this starter list could be augmented by a much longer report of what has actually happened to infuse evaluation of career education into pre and inservice training.

V. The National Scene

Nationally, there is considerable support for continued attention to career education evaluation.

-- Congress continues to emphasize accountability and evaluation in new and re-authorized educational legislation. As an example, the Vocational Education Amendments of 1976 not only require extensive monitoring, accountability and review of program quality but also Congress has mandated a yearly follow-up study of placement and employer satisfaction.

-- The Education Division continues its policy of providing support for dissemination of materials and approaches of proven effectiveness. The review of proven effectiveness is conducted by an interagency group, the Joint Dissemination Review Panel, and is based on evaluation evidence.

-- The US Office of Education is (a) supporting a national evaluation study of career education programs to identify exemplary practices which have evidence sufficient to prove effectiveness before JDRP, (b) supporting a national evaluation of exemplary programs funded through the USOE/Office of Career Education demonstration monies, which will also contribute to measurement and methodology and (c) is continuing support of the excellent reviews of the evaluation literature, bringing together what evaluations presently show about the effectiveness of career education.

-- The National Institute of Education is (a) continuing support of the handbooks to improve the measurement of career education outcomes, (b) continuing support of reviews of evaluation methods and findings through the ERIC/Career Education Clearinghouse, (c) supporting development of new measures of decision-making skills, and (d) sponsoring a series of debates on career education intended to bring together people with opposing views to examine the data

-- The Bureau of Occupational and Adult Education is supporting evaluation of sex fair vocational education, studies whose methods and outcomes should be applicable to examining the tracking versus expansion of aspiration debates in career education

-- The Department of Labor is evaluating the National Occupational Information System; measures and methods from this evaluation should also be useful in evaluating the career development outcomes of career education

At the state level, several states have placed much emphasis on career education evaluation. Michigan, New Mexico and Texas, for example, have supported statewide evaluations of career education implementation and outcomes.

VI. Summary:

In closing, there are two messages.

First, there is little unequivocal evidence regarding the effectiveness of career education programs, either in terms of unique claims for improved career decision-making or career planning, or in terms of the debated assertions. Some urged that we should change our thinking about the purpose of career education to avoid applying a management by objectives strategy to a catalytic idea whose glory may be its hard-to-pin-down quality and whose function may be chiefly to goose the system. There may be much merit in this perspective, but for the short-term, evidence of effects either in startling the system or in improving people's lives is needed. The good news is that the evidence, with some exceptions, is not at all consistent with the critics of career education. The evidence tends to be either a no-call situation or generally consistent with the claims of the proponents of career education.

Second, career educators should take the initiative in repudiating goals which the programs probably should not be held accountable for affecting (e.g., youth unemployment), should reassert the importance of institutional change and individual goals, and set the criteria by whcih the programs are to be rigorously assessed. And lastly, those concerned with career education should be in the forefront of seeking rigorous, uncompromising evaluations, making the committment of time and of money required, and applying the many available techniques fairly and sensitively to see what differences career education is making in people's lives, in the workplace, and in our institutions of lower and of higher education.

REFERENCES

Arterbury, Elvis et al. THE EFFICACY OF CAREER EDUCATION. National Advisory Council on Career Education, Washington, 1976.

Arterbury, Elvis H. Testimony presented at the Hearings of the Subcommittee on elementary, secondary and vocational education, on H.R. 7, Washington, D.C.: February 8, 1977.

Bobrow, Sue B. REASONABLE EXPECTATIONS: LIMITS ON THE PROMISE OF COMMUNITY COUNCILS, Washington, D.C.: Rand Corporation, 1976.

Brazziel, William F. CAREER EDUCATION AND BLACK AMERICANS. Paper presented at the National Conference on Career Education: Implications for minorities. Washington, D.C.: February 1-3, 1973.

Congressional Record, House of Representatives, Tuesday, April 5, 1977 (Vol. 123, No. 60 H 2996-H3008). Debate on the floor on the Elementary and Secondary Career Education Act of 1977.

Edgerton, Russell. WHAT HAS THE FUND LEARNED ABOUT RELATING EDUCATION TO WORK? Paper presented at the American Association of Higher Education meeting; Chicago, Illinois, March 22, 1977.

Elementary and Secondary Career Education Act of 1976, HR 11023: Hearings before the subcommittee on elementary, secondary and vocational education, House of Representatives.

Elementary and Secondary Career Education Act of 1977. HR 7. Hearings before the subcommittee on elementary, secondary and vocational education, House of Representatives.

Grubb, W. Norton and Lazerson, Marvin. RALLY AROUND THE WORK PLACE: CONTINUITIES AND FALLACIES IN CAREER EDUCATION. Harvard Educational Review, 1975, 451-474.

Hanson, Lorraine. OVERVIEW OF MAJOR DEFINITIONS AND CONCEPTS OF CAREER EDUCATION. National Advisory Council on Career Education, 1976.

Heyneman, Steve. THE QUESTION OF CAREER EDUCATION. Social Research Group, George Washington University, 1976.

Hoyt, Kenneth B. Testimony presented at the Hearings of the Subcommittee on elementary, secondary and vocational education, on H.R. 7, Washington, D.C., February 9, 1977.

Johnson, Jim and Peterson, Robert. THE WORK ETHIC ON CAREER EDUCATION. San Francisco; the Far West Laboratory, 1977.

Kearney, Chris D. and Clayton, R. CAREER EDUCATION AND BLACKS: TRICK OR TREAT? The *School Counselor*, November 1973.

Kemble, Eugene. Testimony presented at the Hearings of the subcommittee on elementary, secondary and vocational education, on H.R. 7, Washington, D.C., February 8, 1977.

Langsdorf, Michael and others. THE CAREER INTERN PROGRAM: AN EXPERIMENT IN CAREER EDUCATION THAT WORKED. Washington, D.C.: National Institute of Education, 1977.

Nash, Robert K. and Agne, Russell. CAREER EDUCATION AND WORK IN THE CORPORATE STATE. *School Review*. November, 1974, 67-78.

McGowan, Eleanor and Cohen, David K. CAREER EDUCATION: REFORMING SCHOOL THROUGH WORK. *Public Interest*, 1977.

AN INTRODUCTION TO CAREER EDUCATION: A policy paper of the U.S. Office of Education Washington, D.C. DHEW Publication No. (OE) 75-00504, 1975.

Partners in Career Education. Career education and academic achievement in the elementary school. Arlington, Texas, 1976.

Texas Education Agency, BASIC LEARNING OUTCOMES FOR CAREER EDUCATION, Austin, Texas, 1973.

Walsh, John. CRITICAL ISSUES PERTAINING TO THE ESTABLISHMENT OF EDUCATION AND WORK COUNCILS. Olympus Research Corporation, Salt Lake City, 1976.

Weber, George. CAREER EDUCATION IS STILL FLOURISHING. *Council on Basic Education Bulletin*, 19, February 1975, 1-4.

Wirtz, Willard. *The Boundless Resource*. Washington: The New Republic Book Co., 1975.